



UNITED STATES MARINE CORPS  
MARINE CORPS INSTALLATIONS EAST-MARINE CORPS BASE  
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CAMP LEJEUNE NC 28542-0005

MCIEAST-MCB CAMLEJO 3570.1  
G-3/5  
7 Nov 2014

MARINE CORPS INSTALLATIONS EAST-MARINE CORPS BASE CAMP LEJEUNE ORDER  
3570.1

From: Commanding General  
To: Distribution List

Subj: RANGE ORDER FOR RANGE CONTROL OPERATIONS (SHORT TITLE:  
RANGE CONTROL SOP)

Ref: (a) MCO 3570.1C/DA PAM 385-63  
(b) MCIEAST-MCB CAMLEJ 1700.6A  
(c) SECNAVINST 5510.34A  
(d) NDP-1  
(e) MCO 5510.20B  
(f) MCO 3500.27B  
(g) MCO 5100.8  
(h) SECNAVINST 5100.10  
(i) NAVMC Directive 5100.8  
(j) DOD 4160.21-M, "Defense Disposition Material Manual,"  
August 18, 1997  
(k) BO 8020.1C  
(l) MCO 8025.1E  
(m) NAVMC 10155  
(n) MCO 5104.1  
(o) Military Handbook 828B  
(p) MCO P8020.10B  
(q) MCIEAST-MCB CAMLEJO 3440.6  
(r) ALMAR 010-01  
(s) MCO P5090.2A Ch 3  
(t) BO 5090.111  
(u) MCIEAST-MCB CAMLEJO 5090.8  
(v) BO 5090.91  
(w) 40 CFR 266.202(d)  
(x) MCO 3570.1D.10  
(y) MSOSO 3570.1D  
(z) 14 CFR 91.209  
(aa) BO 1540.1D  
(ab) MCO 3440.3G  
(ac) MCIEAST-MCB CAMLEJO 5090.115  
(ad) 2d Marine Division Training SOP P1540.28J  
(ae) NAVSEA OP. 5, Vol.1, Seventh Rev.  
(af) MCO 5530.14A  
(ag) NAVSEA SW020-AG-SAF-010  
(ah) NAVSEA OP 3565, Vol. I and II  
(ai) NAVAIR 16-1-529 Vol. 2, Rev. 18  
(aj) MCIEAST-MCB CAMLEJO 8020.2  
(ak) MCO 3400.3G

DISTRIBUTION STATEMENT A: Approved for public release; distribution  
is unlimited.

- (al) FM 3-22-68
- (am) TM 43-0001-28
- (an) TM-086-55A-10A
- (ao) TC 3-23.30
- (ap) TM 3-22.31
- (aq) FM 3-22.27 Ch 1
- (ar) 10th Marines Artillery JtRegtO P3570.1E
- (as) MCWP 3-1 6.23
- (at) NAVMC 3500.7
- (au) CG MCB CAMLEJ Decision Memo 01-39 of 26 Apr 01
- (av) Joint CAS Publication JP 3-09.3 Ch 1, "Close Air Support,"  
July 8, 2009
- (aw) FM 3-24.214
- (ax) NAVSEA SW060-AA-A-010
- (ay) TC 3-22.23
- (az) FM 3-23.30
- (ba) BUMEDINST 6470.19A
- (bb) BUMEDINST 6470.23
- (bc) SECNAVINST 5100.14D
- (bd) Joint Publication 3-09.1, "Joint Tactics, Techniques, and  
Procedures for Lasers," May 28, 1999
- (be) OPNAVINST 5100.27
- (bf) 21 CFR 1040 21, Performance Standard for Light Emitting  
Products
- (bg) United States Coast Pilot 4 (USCP 4)
- (bh) 33 CFR 334.440
- (bi) USN Fleet Exercise Publication 5B Series
- (bj) Allied Tactical Publication 4E-Naval Gunfire Procedures
- (bk) United States Navy SW 323-AB-ORD-020 Rev 2
- (bl) NAVORD PUB TW024-AA-ORD-010, Ammunition (Serviceable,  
Suspended, and Limited Use)
- (bm) DODI 6055.01, "DoD Safety and Occupational Health (SOH)  
Program," October 14, 2014
- (bn) MCRP 5-12.1, Risk Management
- (bo) MCO 3120.11
- (bp) MCWP 3-15.7, Static Line Parachuting Techniques and  
Training

Encl: (1) Range Control Order/SOP

- Reports Requireds:
- I. Class V (W) Expenditure Report  
(NAVMC Form 11381). par. 5g(2)(x) Chap. 1
  - II. Serious Incident Report EXEMPT;  
Event/Incident (OPREP-3). par. 5f(4) Chap. 1
  - III. Casualty Report DD-3040-2; Personnel  
Casualty Report (PCR). par. 5f(4) Chap. 1

1. Situation. To publish a directive covering the requirements, instructions, and procedures governing the use of all training facilities, live-fire ranges, airspace, ground maneuver areas, and water areas within and adjacent to Marine Corps Installation East-

Marine Corps Base Camp Lejeune (MCIEAST-MCB CAMLEJ), under the jurisdiction of the Commanding General (CG), MCIEAST-MCB CAMLEJ. All facilities referenced in this Order are associated directly with live-fire ranges, training areas, and training facilities and do not include academic or applied instruction facilities within established cantonment areas.

2. Cancellation. BO 3570.1C dated 2 May 2011.

3. Mission

a. The Range Control Division (RCD) provides operationally ready training ranges, facilities, and maneuver areas to operational forces assigned, formal schools of Training and Education Command, and other Department of Defense (DoD), Federal, state, and local agencies while ensuring safe, efficient use, and management of all training facilities aboard MCIEAST-MCB CAMLEJ.

b. Summary of Revision. This Order contains substantial revisions/updates/changes in format and shall/must be completely reviewed by all units/commands assigned to MCIEAST-MCB CAMLEJ.

4. Execution

a. Commander's Intent. The intent of this Order is to provide specific guidance for all using units/commands with information and operating procedures for all training facilities, live-fire ranges, airspace, ground maneuver areas, and water areas to be used in a safe, efficient manner, preserving life, equipment, and natural resources aboard Camp Lejeune. All commands/units shall ensure strict compliance with the instructions contained in this Order and reference (a) at all times.

b. Subordinate Element Missions. Organizational Unit Commanders training aboard Camp Lejeune are to be guided by reference (a) and this Order. All units are encouraged to submit recommendations concerning training improvements or changes to this Order to the CG MCIEAST-MCB CAMLEJ (G-3/5 RCD) through written communication. Occasionally or as necessary, the RCD will release Range Advisory Messages that are numbered to clarify or update this Order and it will update the Range Cards as required or as directed.

c. Coordinating Instructions

(1) In the event the instructions contained in this document conflict with those issued by higher authority; higher authority shall always take precedence. The CG MCIEAST-MCB CAMLEJ will be notified of such conflicts and questions of interpretation will be referred to the Director, RCD/Range Control Officer (RCO) for resolution.

(2) Punitive Effect

(a) Violations of this Order may be punishable in accordance with the Uniform Code of Military Justice (UCMJ) for all military personnel and may be the basis for appropriate disciplinary actions with respect to Government civilian employees. All other civilian violations could be punishable by the appropriate law enforcement agencies.

(b) This Order prohibits the use of alcohol and controlled substances in the training complex, and prohibits any individual under the influence of alcohol or controlled substances entrance into the training complex. Consumption of alcohol during special military functions in the field like Field Mess and Warrior Nights will require a Special Range Request submitted to the CG MCIEAST-MCB CAMLEJ (G-3/5) at least 30 working days in advance of the event. Requests for underage drinking at these events will be submitted via the unit's chain of command to the CG MCIEAST-MCB CAMLEJ (G-1 Adjutant) as required. Amplifying information and guidance is available in reference (b).

(c) This Order requires that ammunition and explosives (A&E) not expended during training must be returned to the Ammunition Supply Point (ASP) in the original packaging, when firing/training is complete.

(3) This Order ensures that an aggressive education program on the dangers of dud ammunition and other unexploded ordnance (UXO) items is implemented.

5. Administration and Logistics

a. This Order has been reviewed, coordinated, and approved by the CGs of II Marine Expeditionary Force (II MEF), 2d Marine Division (2d MarDiv), 2d Marine Aircraft Wing (2d MAW), 2d Marine Logistics Group (2d MLG), the Commander, U.S. Marine Corps Forces, Special Operations Command (MARSOC), as well as the Commanding Officers (COs) of the United States Coast Guard (USCG), Special Missions Training Center (SMTC), U.S. Navy Center for Security Forces Learning Site, Marine Corps Air Station (MCAS) New River, School of Infantry-East (SOI-E), Marine Corps Engineer School (MCES) and Marine Corps Combat Service Support Schools (MCCSSS), and other MCIEAST-MCB CAMLEJ General and Special Staff Departments. It has also been coordinated with the Range and Training Area Management (RTAM) Branch (C465), Training and Education Command (TECOM), Quantico, VA.

b. Information contained in this Order may be disclosed on an oral, visual, or documentary basis, as approved by the MCIEAST-MCB CAMLEJ Designated Disclosure Authority. Disclosure must be in accordance with the policies, and procedures of current regulations, references (c), (d), and (e). MCIEAST-MCB CAMLEJ is the delegated

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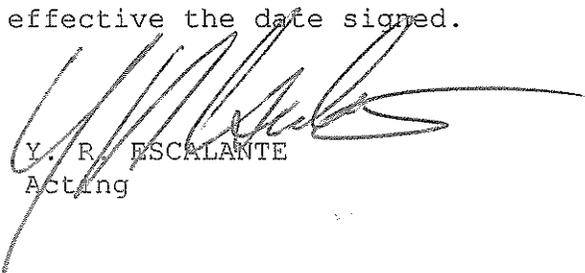
authority to approve or deny foreign visits by foreign personnel to U.S. Government facilities in accordance with the policies of this letter and the including Part II, Chapter 8 of reference (c).

c. Units and base organization will notify Range Control /BLACKBURN of all potential hazards within the training complex so proper action can be taken.

6. Command and Signal

a. Command. This Order is applicable to all commands, organizations, units, and activities authorized to use the training facilities, live-fire ranges, airspace, ground maneuver training areas, and water areas controlled by the CG MCIEAST-MCB CAMLEJ.

b. Signal. This Order is effective the date signed.



Y. R. ESCALANTE  
Acting

DISTRIBUTION: A-1 plus

RECORD OF CHANGES

Log completed change action as indicated.

Change Number	Date of Change	Date Entered	Signature of Person Incorporated Change

Note: This listing would include Range Control Advisory Messages.

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Chapter 1

General Instructions

1. Purpose and Scope

a. This Order prescribes the regulations, general information and precautions to be taken in the firing of United States (U.S.) military, approved foreign, and civilian-issued weapons if approved by special request, and the use of live ammunition, simunitions, non-lethal weapons devices, energy producing weapons/equipment (lasers), pyrotechnics, blank ammunition, training devices, and explosives; also the use of all live-fire ranges, mortar positions (MPs), gun positions (GPs), training towers, observation posts (OPs), training/maneuver areas (TAs), airspace, tactical and administrative landing and parachute drop zones (DZs), water DZs, waterways/New River water sectors, training beach (EB) Training Area [TA]), and other training facilities such as the military operations in urban terrain (MOUT) complex, Enhanced MOUT complex, Combat Town, Mobile MOUT, several different Forward Operating Bases (FOBs) at various locations, Training Tanks/Pools, Underwater Egress Trainer (UET), HMMWV Egress Assistance Trainer (HEAT), and other related approved and control training devices/facilities. All facilities referenced in this Order are associated directly with live-fire ranges and TAs (RTAs) and training facilities and do not include academic or applied instructions facilities located within the established cantonment areas of MCIEAST-MCB CAMLEJ.

b. The primary purpose of this Order is to maximize safe and realistic training opportunities and provide a source of general information to the using units and all commands that train aboard this Installation. Nothing contained in these regulations will be construed as permitting live-fire, or other high-risk training activity/events that endangers life, property, and/or equipment. Local Standing Operating Procedures (SOPs) and range policies will reinforce the current edition of reference (a).

c. Safety regulations, as prescribed by this Order and the current edition of reference (a) with all published/approved changes are applicable to firing ammunition for training and target practice. Where conflicts occur with instructions contained in references like Field Manuals (FMs), Technical Manuals (TMs), Marine Corps Manuals (MCMs, MCDPs, MCRPs), and unit SOPs; the provisions of the current edition of reference (a) will take precedence.

d. Policies and procedures established in this Order are based on combat, operational, and training experiences, as well as safety considerations specified in reference (a). They have been developed in a manner that allows units to use RTAs and training

facilities efficiently to achieve realistic combat training while ensuring an acceptable level of risk. Training casualties are unacceptable. Safety considerations and common sense are paramount.

e. Operational Risk Management (ORM) is to avoid unnecessary risk. Successful implementation of the ORM process will increase mission effectiveness while minimizing unnecessary loss of assets, both personnel, and material, per reference (f).

f. MCIEAST-MCB CAMLEJ Range Control reserves the right to revoke the Range Officer-in-Charge (ROIC)/Range Safety Officer (RSO) range certification/ROIC/RSO card and usage of the airspace to any aircrew when warranted or as directed by the RCO.

g. ROICs/RSOs will brief all personnel concerning the danger of dud ammunition, off-limits areas, and other pertinent range restrictions, possible hazardous areas/situations, and general/range safety requirements. See the Range Control Web Page or RFMSS dashboard for latest information. Personnel will be instructed not to touch or disturb UXO duds, but to mark the site and report the location to Range Control/BLACKBURN. If you did not drop it, do not pick it up.

## 2. Applicability

a. This Range Order (SOP) and Range Cards applies to active /reserve United States Marine Corps (USMC), active/reserve Army, the Army National Guard, and all other Department of Defense agencies, unless otherwise stated. It also applies to any Federal, state, and local law enforcement agencies/departments, and persons or organizations using Camp Lejeune RTAs or facilities.

b. In addition to the regulations stated in this Order, all training units must abide by the Special Instructions (SPINS) outlined in the individual range cards, which are an extension of this order. Individual range cards containing SPINS and duties along with responsibilities of the ROIC/RSO are located at Range Control, as well as the Camp Lejeune Range Control Website.

3. Abbreviations and Definitions. A list of abbreviations and definitions used throughout this Order can be found in Appendix A.

## 4. Camp Lejeune Overview

a. The mission of MCIEAST-MCB CAMLEJ is to provide training and logistic support for active and reserve components and to provide mobilization and deployment support to units during exercises and contingencies so they can deploy, fight, and win anywhere in the world. This requires operation and maintenance of training and

support facilities, provision of a wide range of municipal services (Local/State/Federal) to include security, housing, education, medical care and recreation for Marines, Sailors, retired service members, civilian Marines, and family members who make up the Camp Lejeune military community. It also requires the management and preservation of our natural resources.

b. Camp Lejeune is the largest USMC expeditionary training base on the east coast of the U.S., housing approximately 42,000 Marines and Sailors serving in the assigned major commands aboard the installation. Camp Lejeune geographically encompasses the onshore, near shore, and surf areas in and adjacent to the Atlantic Ocean, the New River, and the complex's boundaries. The Range and Training Complex includes:

(1) 11.5 nautical miles (nm) of ocean-side coastline, including 2.4 nm of amphibious landing beach, 1.8 nm of recreational beach, 5.74 nm of impact area beach and 3 nm of special use area.

(2) 246 square miles of land area with about 97,400 acres of usable training area.

(3) 98 live-fire ranges/92 training areas. The number of ranges aboard Camp Lejeune are subject to change as new ranges are developed/opened up, and older live fire ranges are closed (in-active ranges).

(4) A MOUT Complex with 33 concrete block buildings, and Urban Training Facility (UTF), Mobile MOUT Complex with 71 metal containers /structures, with 5 live fire containers and one OP. Combat Town has 14 older, wooden building and 48 metal containers and one OP. The Enhanced MOUT (E-MOUT) has 72 concrete buildings, a control tower, UTF/classrooms/restrooms with atomospherics/props.

(5) Shallow ocean areas (less than 100 fathoms) in Onslow Bay for amphibious training and riverine TAs in the New River and Atlantic Intracoastal Waterway (AIWW).

(6) 200 square miles of Special Use Airspace (SUA), restricted for military use from sea level to 17,999 feet (ft.).

(7) Three dudded impact areas (G-10, K-2, and N-1/BT-3) that support munitions from 9mm/5.56 mm ammunition to 155mm delivered by direct fire, indirect fire, fixed-wing Close Air Support (CAS), Rotary-wing CAS and Naval Gunfire. Camp Lejeune no longer allows dud producing ordnance to be fired or dropped into the N-1/BT-3 Impact Area.

(8) 47 Tactical Landing Zones (TLZs), 21 Administrative Landing Zones (ALZs), 12 ground and 5 water DZs, 27 GPs, 8 MPs, 16

Unmanned Aerial System (UAS) restricted operating zones (ROZs) and 12 OPs.

(9) A Landing Helicopter Deck (LHD) training site for helicopter and tiltrotor pilot training, two Air Field Seizure (AFS) Facilities (AFS Complex North and AFS Complex South) with a mock airport/FOB and two runways contained at Outlying Field (OLF) Camp Davis (Camp Davis South/North Runways) description use. Camp Lejeune also controls Marine Corps Outlying Field (MCOLF) Oak Grove with three additional runways and two TLZs.

c. The topography lacks hilly or mountainous terrain, but the TA is densely vegetated with hardwood/pine forest, heavy undergrowth, dotted pocosin swamps and wetland areas. The vegetation, climate, growing season and high water table combine to present several unique training and environmental challenges.

d. The Eastern North Carolina Coastal area has a temperate climate with relatively mild winters, hot, humid summers, and precipitation throughout the year. The average annual rainfall is over 40 to 50 inches (in.), and snow/ice, although rare, does fall occasionally on the area. Climate is influenced by the Atlantic Ocean and the Gulf Stream, as weather patterns and temperatures are slightly different from areas farther inland. Camp Lejeune is occasionally affected by tropical storms, tornados, and hurricanes from June through November each year. The average annual temperature is near 62 degrees Fahrenheit (°F) with high summer temperatures near 90°F and low winter temperatures near 45°F. Humidity plays a major factor during the hot summer months, increasing the temperature by 5-10°F. The weather is not suitable for flying approximately 40 days per year due to ceiling and visibility issues.

(1) Training/Maneuver Areas. Camp Lejeune has 92 designated training/maneuver areas in and around the live-fire ranges and impact areas. Scheduling of some TAs can be affected (a conflict) by live-fire operations on the ranges. TAs are designated alphabetically from "AA" to "SW". 85 of the 92 TAs are designated as tactical maneuver areas; one area (EB) is designated separately for amphibious and expeditionary exercise support and beach training. TA EC is the recreational portion of Onslow Beach and typically not scheduled for training. Camp Lejeune also controls MCOLF Oak Grove that includes seven TAs (Oak Grove OLF, OA, OB, OC, OD, OE, and OF), three runways, and two TLZs (LZ Bat and LZ Emu). MCOLF Oak Grove runways and TLZs are only for rotary-wing/tilt-rotor aircraft operations. Units can conduct ground training at Oak Grove if properly scheduled and signed for.

(2) Impact Areas. There are three main impact areas aboard Camp Lejeune: G-10, K-2, and N-1/BT-3.

(a) G-10 Impact Area Ranges. G-10, located east of the New River, supports fixed-wing/rotary-wing air-to-ground operations, helicopter live-fire gunnery exercises, mortar and field artillery indirect firing, naval gunfire, infantry weapons, and infantry rocket and missile live-fire evolutions. Laser designators can be used within the G-10 Impact Area. Twelve ranges encircle the G-10 Impact Area: G-3, G-3 TOW, G-6 Company Battle Course (CBC), G-10 Convoy Ops Range (Site 3 and Site 4), G-19A rocket range, G-19B M203/M32 40mm range, G-21 Multi-Purpose Machinegun (MPMG) and Sniper Range, G-27 Infantry Squad Battle Course (ISBC), and Range G-29A/B. Each range can support multiple weapon systems, per this Order/Range Cards. Range G-3, Range G-3 TOW, and G-29A/B Multi-Purpose Range are oriented to support infantry weapons training evolutions with all ordnance impacting in the G-10 Impact Area. The G-6 CBC is a company/platoon /squad-sized combined arms, live-fire and maneuver attack range that requires a Special Range Request (SRR). The G-10 Impact Area also includes the Urban CAS (UCAS) Facility, eight MPs and five OPs which must be scheduled and signed for separately.

(b) K-2 Impact Area Ranges. K-2, located on the western banks of the New River, supports infantry weapons training (5.56mm and below), mortar live-fire, field artillery indirect fire, and infantry rocket/M203 /M32/MK-19 training and supports limited/restricted rotary wing air operations within the K-2 Impact Area. The K-2 Impact Area has 16 live-fire ranges (see Range Cards and Table 5-1 of this Order for a complete list of ranges within the K Range complex) oriented around its perimeter. The ranges can support multiple weapon systems. These ranges are oriented to support infantry weapon systems and basic infantry tactics. Close to the K-2 Impact Area are several other ranges like K-510 Hand grenade Range and Engineer TA (ETA-5/ETA-5A) that support limited demolition and light breacher training. The K-2 ranges do not support 7.62mm or .50 cal. machinegun type training events.

(c) N-1/BT-3. N-1/BT-3, located on the southeast corner of Camp Lejeune with a 168-degree direction of fire (seaward), is a live-fire range that can support air-to-ground weapons, ground-to-air Stinger and Avenger live-fire at E-1 range, field artillery direct fires at G-7 range, riverine/small boat training at H-1 range, helicopter gunnery exercises which will include limited training practice (TP) Hellfire Missile live-fire and limited training practice (TP) Joint Direct Attack Munitions being delivered by fixed-wing aircraft, and machinegun familiarization training at G-5 range. The H range, (Riverine Assault and Waterborne Gunnery Range), is located within N-1/BT-3's boundaries. Additionally, the G-7 range, which supports field artillery direct fire and infantry weapons training evolutions, orients the fires of all weapon systems and ordnance to impact within the N-1/BT-3 Impact Area. Camp Lejeune no longer allows dud producing ordnance to be fired or dropped into the N-1/BT-3 Impact Area/Brown's Island complex.

(3) Engineer Training Area. There are 14 ETAs aboard Camp Lejeune: ETA 1, 2, 3, 4, 5, 5A, 7, 7A, 7B, 7C, 7D, 8, 9, and ETA 10. The primary function of the ETAs is to provide operational engineering units like MCES, 2d Combat Engineer Battalion (CEB), Marine Wing Support Squadron (MWSS) and other scheduled units with facilities to conduct engineer demolition/explosives training. Alternative uses of the ETAs include as an infiltration course at ETA-1, a mechanized assault course and breaching operations range at ETA-2, execution of live-fire breaching exercises and a Close Quarters Battle (CQB) area and MOUT breaching house at ETA-5A. The above Net Explosive Weight (NEW) authorized per shot, depends on the assigned/scheduled ETA as delineated within this Order and the applicable Range Card. Camp Lejeune also has two separate Explosive Ordnance Disposal (EOD) ranges (EOD-2 and EOD-3). ETA-6 is not a live-fire ETA and has been converted to a Combat Vehicle Operators Training (CVOT) Confidence Course. Camp Lejeune also has two Engineer Heavy equipment TAs called Mainside ETA and New River Air Station ETA, which support heavy equipment operator training. ETA-3 has been put into an inactive status for live fire and ETA-4 will be limited to inert MICLICs and live APOBS.

(4) MOUT Facilities and MOUT Assault Courses (MACs). The MOUT complex is located just off Lyman Road in the eastern part of Camp Lejeune (see Range Cards). The MOUT Facility has 31 concrete block building facility focused on training for combat in an urban environment. Close to the MOUT Facility there are seven live-fire assault courses, MAC 1-7, maintained for individual, fire team, and squad level urban live-fire training. These ranges provide the opportunity to shoot 9mm/45 cal. pistols, M-16, M4, M203/M32 (TP Only) and shotgun ammunition.

(a) MAC-1, the Urban Quick Kill Range, with multiple wooden buildings, is used for basic room entry and clearing that has electronic targets and can only be scheduled ten hours per day.

(b) MAC-2, the Search and Kill Range, is used for search and clearance operations that has electronic targets and can only be scheduled ten (10) hours per day.

(c) MAC-3, the live-fire Grenade House, is for live-fire room clearing room clearing, constructed of a shock-absorbing concrete (Shock/Bullet absorbing concrete panels) structure. MAC-3 is authorized for live fragmentation grenades if properly scheduled and a Special Range Request (SRR) is submitted as per this Order/Range Card for MAC-3.

(d) MAC-4, the Cover and Clear Range, is primarily a fire team MOUT/urban battle drill facility.

(e) MAC-5, Dodge City, is the basic squad MOUT range.

(f) MAC-6 is the Combat Marksmanship Program (CMP) and BZO/Zeroing range that has electronic targets and can only be scheduled 10 hours per day.

(g) MAC 7 is an urban M203/M32 40mm Training Practice Ammunition (TP Ammunition Only).

(h) Mobile MOUT, located nearby has 71 metal type containers/structures including five live-fire shoot houses and is laid out to resemble a Middle Eastern village that includes a market area, tunnels, walls, and courtyards, with a FOB and Vehicle Check Point (VCP)/Vehicle Entry Point (VEP) nearby and 1 OP. Also in general area of Mobile MOUT/MOUT Complex is a three story Urban Training Facility (UTF) that supports training for a wide range of MOUT skills.

(i) Combat Town, located in the center of Camp Lejeune off Sneads Ferry Road, has 14 older wooden structures, 48 metal containers /structures with courtyard walls/gates and 1 OP.

(j) The Enhanced MOUT (E-MOUT) located next to the MOUT Complex which has 72 buildings, control tower, UTF, heads, classroom with atmospheric/props.

(k) A FOB (FOB Hawk) located close to LZ Hawk, located just east of Combat Town which has a Vehicle Check Point (VCP)/Vehicle Entry Point (VEP)/Personnel Check Point (PCP) to support company size units working in or around Combat Town or adjacent training areas.

(5) Greater Sandy Run Area (GSRA) Ranges. The six GSRA ranges are located on the western side of Camp Lejeune (see Appendix D and Range Cards). These ranges primarily support Tank, Light Armored Vehicle (LAV), Amphibious Assault Vehicle (AAV), and infantry platoon training or below.

(a) SR-6 is an automated Infantry Platoon Battle Course (IPBC) range, allowing live-fire and maneuver to be combined.

(b) SR-7, SR-8, SR-9, and SR-10 are automated multi-purpose training ranges. SR-7 is utilized as the LAV/AAV crew qualification range and LAV/AAV multipurpose mechanized assault range. OP-9 can be used as an elevated live-fire sniper position in conjunction with SR-7.

(c) SR-8 is a MPMG and sniper range that supports the M249 SAW/M27 IAR, M240B, and the M-2 .50 cal. along with the presently issued sniper rifles (7.62mm, .50 cal. and others). This range has 334 Stationary Infantry Targets (SITS) in 10 firing lanes along with three Moving Infantry Targets (MITS).

(d) SR-9 a new Infantry Platoon Battle Course (IPBC) /Combined Arms Range (CAR) is under construction on the far western side of the GSRA and is due to open in FY-15. OP-10 can be used as an elevated live-fire sniper position in conjunction with SR-9.

(e) SR-10 serves as the Tank Crew Qualification range, supporting individual and tank platoon crew qualifications through Gunnery Table 12.

(f) SR-11 is a Baffled Pistol Range and supports individual pistol qualification and is located on the SR-10 range complex.

(g) Also located within the GSRA is the Camp Davis Airfield Seizure Facility North. This facility is comprised of five cinder block shell structures that serve as a mock tower, two mock hangars, a mock maintenance building, and a mock terminal. The facility also includes two A-4 aircraft to simulate ongoing airfield operations.

(h) GSRA FOB between SR-6 and SR-7 and the new Camp Davis, Air Field Seizure South Complex with 15 containers/structures for that training requirements/skill sets near the Camp Davis South Runway. See the Range Cards for additional information on this site.

(6) Stone Bay Ranges. Stone Bay Rifle Ranges are located aboard Camp Lejeune on the western side of the New River, off of Highway 210. Stone Bay has three 50-target known distance rifle ranges (A, B, and C ranges), two pistol ranges, Hathcock Sniper range (1000-yard sniper range), Dodge City (Urban Sniper range) and the Multi-Purpose range that are under the direct control of the Commanding Officer (CO), Weapons Training Battalion (WTBn). The CO, WTBn maintains and operates the pistol and rifle ranges for annual marksmanship qualification/re-qualification training and familiarization firing to support the operating forces. Eight additional ranges at Stone Bay are within the Expeditionary Operations Training Group (EOTG) compound, including one and three-story urban shoot houses, breacher pit/facilities, non-lethal range, Square Bay pistol and rifle range, Helicopter Rope Suspension Training (HRST) facility that supports wall climbing/fast roping/rappelling training towers for EOTG, Marine Expeditionary Unit (MEU), and other MEF units training requirements. See the Range Cards for locations and all listed restrictions.

(7) Area F and R Ranges. There are eight live-fire ranges and one fast-roping/rappelling tower within the F Areas located in the northeastern part of Camp Lejeune. The live-fire ranges include ranges F-2, F-4, F-5, F-25T, F-6, F-11A, F-11B, and F-18/F-18 7.62mm /F-18 .50 cal.

(a) Ranges F-2 and F-4 are small arms live-fire ranges.

(b) Range F-5 is an automated range that supports live-fire and maneuver training.

(c) Range F-6 is standard a hand grenade range with grenade assault course.

(d) Range F-11A serves as a M16A2, M16A4, and M-4 rifle "Zero" range and F-11B supports pistol qualification range.

(e) Range F-18, F-18 7.62mm, and F-18 .50 cal serves as a machinegun field firing range for 5.56mm weapons and 7.62mm and .50 cal machineguns.

(f) Range F-17 is not for live-fire training; it is a fast roping, climbing, and rappelling training tower.

(g) Camp Lejeune also has the R Areas, Range R-100 Skeet/Trap and Archery Range that supports Marine Corps Community Services (MCCS) events only. This range is not authorized for military shotgun training.

(8) Area D Ranges. There are three live-fire ranges within the Area D TAs: D-29A, D-29B, and D-30. Ranges D-29A, D-29B, and D-30 serve as standard military issued pistol qualification and re-qualification ranges located along Julian C. Smith Road.

(9) Area I Range. Range I-1, located within the boundaries of the Courthouse Bay sub-area near the Sneads Ferry Gate off Highway 172, serves as a pistol qualification/re-qualification range for the Courthouse Bay area and assigned units.

(10) Area L Range. Range L-5 is an automated infantry fire team/squad small arms live-fire and maneuver range located within the Area L TA.

(11) OPs, Range Towers, and Sniper Towers. There are 13 OPs, 20 Range Towers, and one Forest Fire/Observation Tower at Camp Lejeune (See Table 5-4). Combat Town (OP-15) and the Mobile MOUT (OP-16) have OPs to support military operations in those scheduled areas. These OPs and towers are used for observation of live-fire and laser operations at each of the impact areas, amphibious operations on the beach area, and live-fire and maneuver events in the GSRA. The towers at the MOUT Complex, Stone Bay Dodge City, SR-7, SR-8, SR-9, and G-21 will also support elevated sniper live-fire training. OP-12 will provide observation into the K-2 Impact Area to support indirect artillery and mortar live fire.

(12) Helicopter Landing Zones (HLZs). Camp Lejeune has two types of HLZs: TLZs and ALZs. There are 47 TLZs within Camp Lejeune's boundaries and 21 numerically identified ALZs (See chapter 4

for locations). The TLZs shall be scheduled for external operations, heliborne operations, rappelling, fast rope, and Special Purpose Insertion and Extraction (SPIE) training. Unscheduled helicopter operations may occur in TLZs after ensuring that the TLZ is not occupied and authorization is granted by BLACKBURN. Oak Grove has two TLZs, see Chapter 4 for locations/grids.

(13) Drop Zones (DZs). DZs are TLZs designated for parachute operations. Camp Lejeune has 11 DZs and five additional Water DZs (WDZs). See chapter 4 for locations.

(14) Special Use Airspace (SUA). Camp Lejeune has four specific SUA segments designated for control and utilization. See Figure 1-1 for more details. All restricted airspace is activated as needed/scheduled in order to support safe range operations.

(a) Restricted Area (Airspace) R-5303A: Surface to 6,999 ft. Restricted Area (Airspace) R-5303B: Surface 7,000 to 9,999 ft. Restricted Area (Airspace) R-5303C: Surface 10,000 to 17,999 ft. Restricted Area (Airspace) R-5304A: Surface to 6,999 ft.

(b) Restricted Area (Airspace) R-5304B: Surface 7,000 to 9,999 ft. Restricted Area (Airspace) R-5304C: Surface 10,000 to 17,999 ft.

(c) Restricted Area (Airspace) R-5306E: Surface to 17,999 ft.

(d) Restricted Area (Airspace) R-5306D: Surface to 17,999 ft.

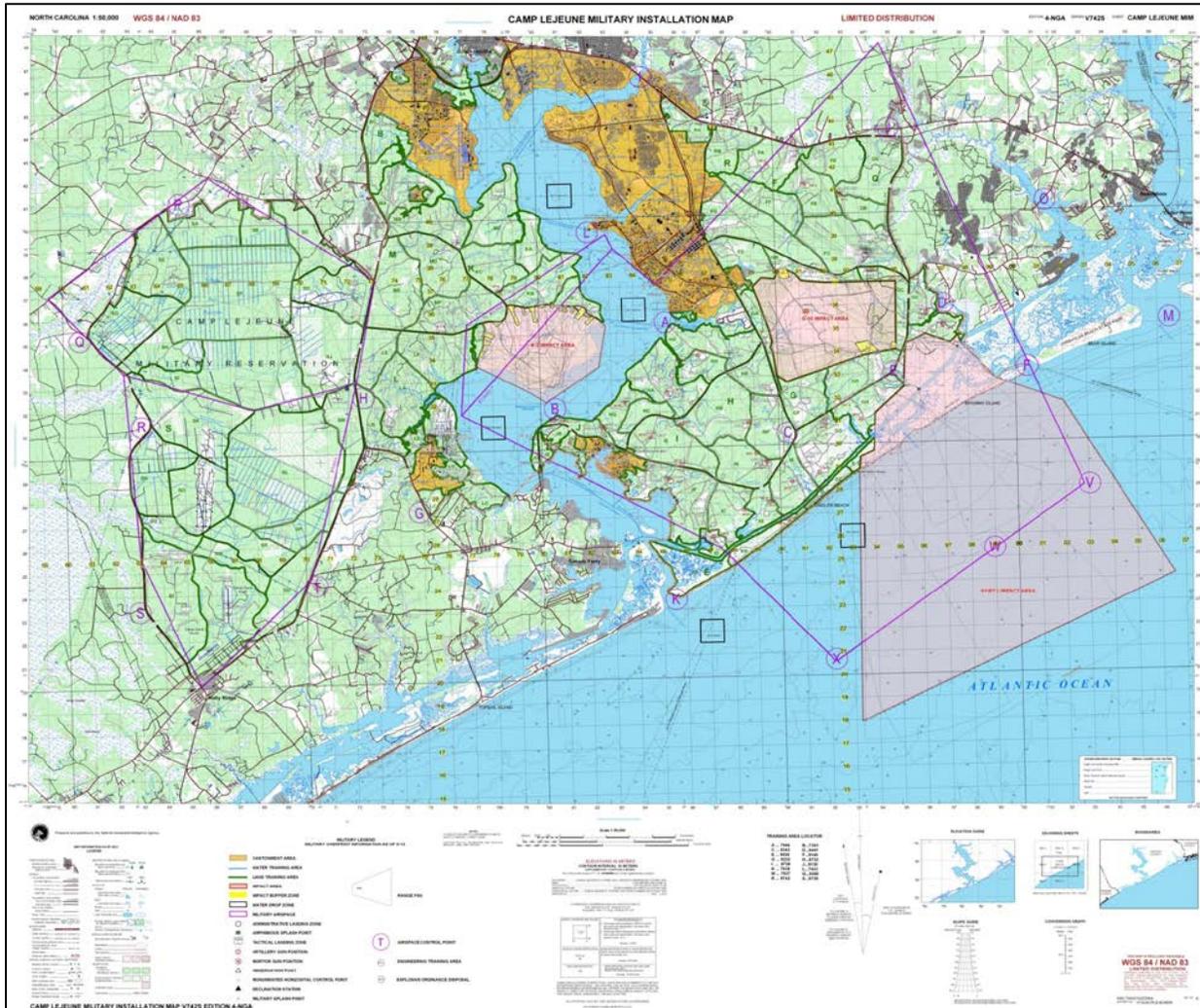


Figure 1-1.--Camp Lejeune Range Complex

(15) Targets. There are numerous automated target ranges aboard Camp Lejeune that are equipped with the Remote Engagement Target System (RETS); All Pistol Ranges, F-5, K-402, K-408, K-501, K-503, K-502, K-509, L-5, MAC-1, MAC-2, MAC-6, G-6 CBC (First objective only), G-10 Convoy Ops range, G-21, G-27, SR-6, SR-7, SR-8, SR-9, and SR-10. See Range Cards for all locations. These RETS ranges offer feedback-automated pop-up, stationary, and moving reactionary targets, which can be used for infantry and armor. The RETS system offers computer-driven, programmed, tactical scenarios or can be operated in a manual mode, with group or individual targets raised on-command. Some of the ranges listed above will also provide small arms sound and muzzle flash simulators to enhance realism. The remaining target and target systems consist of Portable Infantry Targets (PITs); (A-1, B-12, D-29A, D-29B, D-30, F-11B, I-1, and SR-11. See Range Cards for locations (card board/plastic silhouette targets).

WTBn located at Stone Bay has two pistol ranges with automated targets. The G-10/K-2 Impact Areas have a wide variety of vehicle type hulk targets in the range box to support direct and indirect live-fire. A current list of locations and type of targets is available at Range Control.

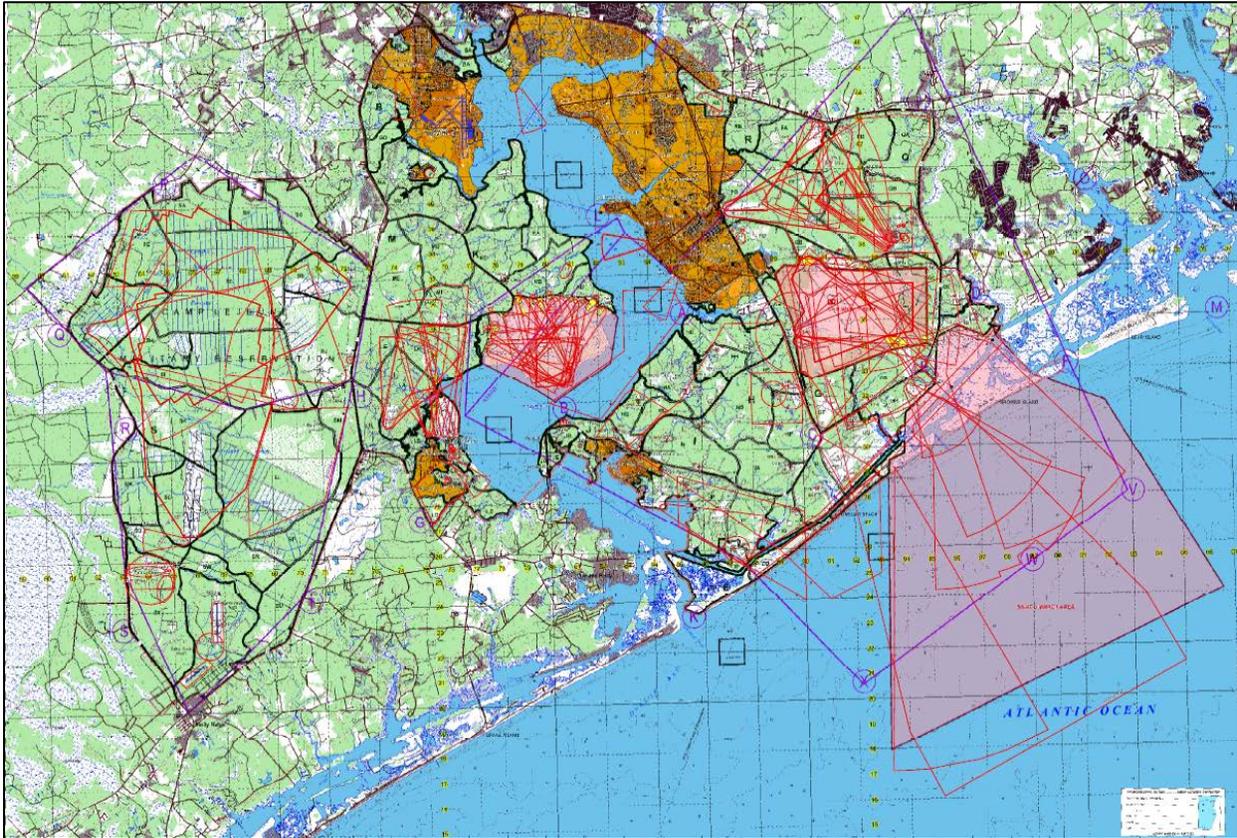


Figure 1-2.--Live-Fire Ranges and Surface Danger Zones

## 5. Responsibilities

### a. MCIEAST-MCB CAMLEJ G-3/5

(1) Plans, coordinates, and supervises the development, modernization, maintenance, and operation of the MCIEAST-MCB CAMLEJ RTAs and training facilities.

(2) Establishes policy, guidance, oversight, assignments, and scheduling procedures for the use of all MCIEAST-MCB CAMLEJ RTAs and training facilities.

(3) Publishes appropriate orders, directives, messages, and correspondence concerning all RTAs, training facilities, airspace, and their required support.

(4) Conducts continuous reviews of the training complexes to ensure all safety procedures are meeting the established criteria prescribed in current regulations/orders.

(5) Coordinates with the MCIEAST-MCB CAMLEJ, Assistant Chief of Staff (AC/S) G-F (Facilities) to ensure that the Range Complex Management Plan receives proper planning, programming, and budgeting of real property management resources. Participate in Military Construction (MILCON) Review Board and the R1/R2 Minor Construction Review Boards as a voting member.

(6) Programs for new construction and range transformation.

(7) Programs for maintenance and repairs of all RTAs and training facilities, in coordination with MCIEAST-MCB CAMLEJ the AC/S, G-F, and other agencies as required.

(8) Prioritizes RTA and training facility projects based on CG MCIEAST-MCB CAMLEJ'S intent, mission, requirements, and available funding.

(9) Programs or budgets for the procurement of communication equipment and other related equipment to support RCD operations as required.

(10) Coordinates with the AC/S, G-7 (GEA) Office MCIEAST-MCB CAMLEJ with all matters dealing with Range Compatible Use Zones Study (RCUZ) and Air Installations Compatible Use Zones Study (AICUZ) requirements and update as required.

b. Director, Range Control Division (Dir, RCD)

(1) Responsible to the MCIEAST-MCB CAMLEJ (G-3/5) for scheduling, controlling, and coordination of all training activities conducted within the Camp Lejeune training complex, which also includes MCOLF Oak Grove. Ensure the safety and deconfliction of all operations and training within the Camp Lejeune training complex. Supervise, manage, and coordinate operations within RCD to accomplish assigned missions, duties, and tasks as required.

(2) Publishes, maintains, and updates the Range Order and Range Cards, Range Control Advisory Messages as required and ensures dissemination to all commands and units that conduct training aboard Camp Lejeune. Monitors all RTA and training facility activities to ensure compliance with, and to remove the privileges of, any person, organization, military unit, command, agency, or club that willfully violates this Order, reference (a), or other related MCIEAST-MCB CAMLEJ orders/policies and USMC orders/policies.

(3) Coordinates with the MCIEAST-MCB CAMLEJ (G-F) and other MCIEAST-MCB CAMLEJ departments regarding live-fire noise issues and all training and training facilities use that could potentially affect the environment and the surrounding local community.

(4) Assists the Installation Safety Office, ESO, and MCIEAST-MCB CAMLEJ Public Affair Office (PAO) in establishing and implementing a comprehensive range safety and UXO awareness educational program as required or directed.

(5) Ensures assessed hazards are effectively communicated to the training units via RFMSS, BLACKBURN, and/or message traffic.

(6) Supervises, coordinates, and manages the following RCD sections/departments and assigned resources:

- (a) Base EOD Team
- (b) Navy Boat Crew
- (c) MOUT Complex Staff
- (d) Fire Desk Operators (BLACKBURN)
- (e) Range Operations
- (f) Range Safety
- (g) Range Scheduling
- (h) Range Inspectors (Vipers)
- (i) Safety/Hazardous Material (HAZMAT) Section
- (j) Information System and Technology (IT) Section

c. Director, Range Development and Management Division (Dir, RDMD)

(1) Responsible for RTA and training facility development and modernization which includes, but is not limited to, coordinating designs, award, and delivery of construction efforts, initial outfitting, and developing SOPs in support of all training assets.

(2) Continually assess RTAs and training facilities for the ability to meet published training standards, missions and requirements for range maintenance. Make improvements based on assessments and prioritized requests from tenant commands/units as required for range maintenance-type requirements.

(3) Acts as the Integrated Geographic Information Repository (IGIR) Working Group liaison to ensure appropriate changes are incorporated into the Geographic Information System (GIS) and mapping products.

(4) Coordinates the submission of training-related projects to the Environmental Impact Working Group. Ensures action items in National Environmental Protection Act (NEPA) documents are resolved prior to implementation of proposed actions. As the MCIEAST-MCB CAMLEJ (G-3/5) action sponsor to the group, review all requests for Field Exercise Request for Environmental Impact Review (FEREIR) submissions for impacts to the RTAs training facilities, and other training assets as required.

(5) Develops and coordinates with the MCIEAST-MCB CAMLEJ, (G-F) the range modernization plan, incorporating short-term, mid-term, and long-term RTA and training facility requirements/projects to meet current and future requirements and goals. Evaluates changing requirements to the plan with the military organizations assigned to Camp Lejeune to ensure mission objectives are sustained and the operating forces can meet training requirements.

(6) Maintains historical information on active and inactive ranges, project data, and related files relevant to the installation training complex boundaries.

(7) Coordinates the submission of new training-related construction and maintenance requirements (R1/R2/M1/M2/MILCON) with the MCIEAST-MCB CAMLEJ (G-F).

(8) Manage and coordinate all contracts associated with range maintenance and range operations as required.

(9) Ensure adequate noise monitoring systems are in place at appropriate locations and funded as required.

(10) Ensure MCIEAST-MCB Safety is notified on all known potential safety hazards to training within the training complex.

d. Range Control Officer (RCO)

(1) Designated by the CG MCIEAST-MCB CAMLEJ in writing. Responsible for executing and enforcing those regulations relative to the land, sea, and airspace within the Camp Lejeune training complex at all times.

(2) Serves as the central point for scheduling, operational control, range safety, and coordination for all training activities conducted within the installation-training complex to ensure safety and unified operations.

(3) Approves, control, and monitor personnel access into the training complex for both training and administrative activities. Coordinate the scheduling of all requested training within Camp Lejeune's controlled air, land, and water spaces.

(4) Produces and publishes a daily Range Firing Warning and Airspace Utilization Order (RFWO) and other documents/messages as required of all scheduled training.

(5) Publishes weekly documents/messages, Notice to Mariners (NOTMARs), Notice to Airmen (NOTAM), and Road Closures, and other required Range Control advisory messages via naval message system and the posting on the Range Control website as required.

(6) Activates the restricted airspace as required and disseminates airspace hazard advisory warning through BLACKBURN to all aircraft to include all UASs operating in the assigned restricted airspace controlled by Camp Lejeune.

(7) Responsible for range safety throughout the MCIEAST-MCB CAMLEJ training complex. Provides impact area layouts, Surface Danger Zones (SDZs), Weapon Danger Zone (WDZs), and analysis of special or unique live-fire and maneuver training requests by evaluating and applying applicable safety parameters and environmental restrictions. Conducts field safety inspections as required or directed.

(8) Recommends range maintenance priorities to the Director, RCD/Director, RDMD as required/directed.

(9) Assists the Installation Safety Office and Installation PAO in establishing and implementing a comprehensive range safety and UXO/dud awareness educational program as required.

(10) Assists the Director, RCD with supervising, coordinating and managing the RCD departments and assigned resources.

(11) Maintains and updates files of current, historical, active and inactive usage data of the installation training complex to include known hazards, type of ammunition expended on each range, UXO/dud accumulation, and disposal records, and clearance status of temporary, dedicated, and high-hazard impact areas.

(12) Ensure MCIEAST-MCB Safety is notified on all known potential safety hazards to training.

(13) Provide ROIC/RSO and Range Laser Safety Officer (RLSO) Information Safety Briefs to include:

(a) Installation training complex facilities;

(b) Installation procedures for signing for opening /closing ranges, training areas and training facilities.

(c) Communications requirements.

(d) Medical Evacuation (MEDEVAC)/Casualty Evacuation (CASEVAC) procedures.

(e) Environmental issues.

(f) Safety training for ROIC/RSO/RLSO.

(g) Other topics as directed or required.

e. Fire Desk Operators (FDO) (BLACKBURN)

(1) The Fire Desk Operators, call sign BLACKBURN, will be manned 24 hours per day, seven days per week to monitor/deconflict training, advise aircraft/UASs operating in the restricted airspace, provide safety guidance, and provide emergency assistance to all units conducting training aboard Camp Lejeune as directed/required.

(2) BLACKBURN will act as the primary point of contact (POC) for all current training operations at CAMLEJ. BLACKBURN will coordinate with all scheduled training units/commands and will perform a variety of supervisory duties, to include, but not limited to; putting units into "Hot/Cold/Check-Fire" status, recording end-of-training reports, directing range inspectors, advising all aircraft of "HOT" ranges/hazard areas, contacting MCIEAST-MCB CAMLEJ Command Duty Officer (CDO) AT (910) 451-2414 and 911 Center when the first live-fire range goes "HOT" and last live-fire range goes "COLD", controlling airspace and monitoring use of all RTAs and training facilities assigned to RCD. Ground training units must contact and maintain communication at all times with BLACKBURN via 34.70 FM, air frequency is 233.8 UHF, and alternate frequency in the GSRA is 40.10 FM, and eastside of the New River is 38.85.

(3) BLACKBURN is the primary means of providing MEDEVAC /CASEVAC assistance to units on RTAs or at training facilities. All injuries must be reported to BLACKBURN, even if no assistance is needed or required. BLACKBURN will ensure that all reported injuries are forwarded to the Installation Safety Office as required or directed. Units must provide follow-up reports as required to BLACKBURN. This will also include military vehicle accidents that happen on RTAs and training facilities, and weather/storm-related injuries including cold, heat stress, heat exhaustion, and heat stroke. BLACKBURN will advise/pass to all units conducting training known, potential, accessed hazards as required/directed.

f. Commanding Officer (CO) of Using Unit

(1) Ensures compliance with this Order, the current edition of reference (a) with all published changes, applicable ammunition, weapons, and equipment MCOs, TMs, FMs, and Marine Corps Warfighting Publications (MCWPs), Marine Corps Reference Publications (MCRPs) and all other applicable SOPs/Range Cards/safety of use messages (SOUMs) for safe training and firing for each weapon system, explosives /demolitions within that command/unit. Ensures all Marines/Sailors have received the required training on the weapon systems/ammunition to be employed and that subordinate leaders involved in the training have a working knowledge of and comply with this Order and other references as required.

(2) Conducts ORM assessment for all training being conducted and have a reviewed and command signed copy of the ORM worksheets on the RTA, training facility, or any high-risk training event. Develop control measures and safety procedures for all phases of training. See Appendix C, ORM for detailed information.

(3) Establishes and maintains a safety training/certification program to train and qualify all personnel assigned to that command in safety procedures for their specific area of responsibility /assignments/weapons/ammunition. Personnel who have not completed the certification will not be appointed as ROICs/RSOs or RLSOs. ROIC/RSO re-certification is required every three years.

(4) Per references (g) through (i), ensures incident reports are filed using Web-Enabled Safety System. Enterprise Safety Applications Management Systems is a web-enabled system that facilitates the filing of incident reports. When Operational Situational Serious Incident Reports (OPREP-3 SIRs) or Personnel Casualty Reports (PCRs) are sent via message traffic, the CG MCIEAST-MCB CAMLEJ must be informed on all message traffic for that incident.

(5) Designates a ROIC, RSO, and Position Safety Officers (PSOs)/Assistant RSOs (ARSOs) (if required) for each RTA or training facility as delineated in this chapter. The ROIC, RSO or the assigned corpsman will not have any assigned additional duties other than the safe operation of that assigned RTA or training facilities.

(6) Certifies in writing, by the commander or "By direction", those individuals designated to perform the duties as ROIC/RSO or any additional training specialists like RLSO, Chemical, Biological, Radiological, Nuclear, High-Yield Explosives (CBRNE), UAS, HST, HRST, Dive Master, Dive Supervisor, Jump Master, Cast Master, MCIWS/MCITWS, DZ Safety Officer, Safety Insert Officer, Breacher, HEAT Trainer, and others as follows:

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(a) Are competent and current in the required certification and properly instructed/trained in the performance of their duties of the assigned tasks/responsibilities as a ROIC/RSO.

(b) Are knowledgeable of proper procedures for the weapon system and ammunition for which they are responsible.

(c) Have completed the Marine Net, Distance Learning Course "Range Safety," and have a copy of the diploma in hand to attend the MCIEAST-MCB CAMLEJ ROIC/RSO Information Safety Course that is conducted Friday mornings. Only 48 seats are available on a first-come, first-served basis. The class goes from 0730-1145, and the door opens at 0700. The ROIC/RSO must keep their Marine Net Range Safety Course current. The Range Safety diploma is valid for three years and must be renewed as required.

(d) Have attended the ROIC/RSO Information Safety Brief given by the Range Safety Specialist (RSS)/Operation Chief and possess a valid ROIC/RSO card. This course is valid for three years and must be renewed as required by re-attending the course.

(e) The original command certification letter with required enclosure must be delivered to RCD and updated quarterly or as necessary to ensure currency/accuracy. All pages of the enclosure listing command certified personnel must have columns properly labeled and must be signed by the commander or "By direction". Units must have the Range Control Card number for the assigned personnel listed on this letter/enclosure.

(7) Designate the appropriate uniform and protective equipment if not prescribed by a higher authority (helmets/flak jackets/hearing and eye protection/gloves) or other items if needed or required based on the type of training to be conducted.

(8) Ensure the scheduling, modification, approval, and/or cancellation of Electronic Training Area Requests (E-TAR) in the RFMSS, per Chapter 3. All units must ensure all training areas/water areas being used and transiting are properly scheduled in RFMSS.

(9) Unit commanders should ensure an adequate route reconnaissance is conducted when the type of training and/or meteorological conditions add risk.

(9) Appoint technically qualified personnel to certify, verify, and properly handle ammunition, explosives, and range residue (i.e. spent brass, bandoleers, clips, links, casings, ammunition cans/boxes) in accordance with references (j) and (k).

g. Range Officer-in-Charge (ROIC)

(1) Qualifications

(a) Must be a commissioned officer, warrant officer, or staff noncommissioned officer (SNCO) (E-7 or above for dud producing ammunition and fire and movement type training events like CMP). **Requests to deviate from the established rank criteria must be signed by the Commanding Officer (CO) only (Not "By Direction") and endorsed by at least an (O-6) or Colonel within that chain of command and must be submitted via the chain of command (e.g., Bn, Regiment, Div, MEF) to the CG MCIEAST-MCB CAMLEJ at least 30 days prior to the training.** The ROIC is the only one that can sign for a live-fire range, high-risk training event or a training facility. TAs and facilities where the use of pyrotechnics, blanks, other non-high-risk training devices will be treated similar to a live-fire event and must be signed for by an E-5 or above. TAs or when training does not use any of the above devices and only involves maneuvering will not have to be signed for. Civilian Contractors can not serve as the Range Officer-in-Charge (ROIC).

(b) Must have completed the Marine Net, Distance Learning Course "Range Safety Course, Title RTAMRSOCAA," and have a valid completion diploma that is kept current. This course is a prerequisite for the enrollment in the Range Control Information Safety Brief. A current copy must be provided to Range Control.

(c) Must have received the Range Control Information Safety Brief (ROIC/RSO Class) and possess a valid CAMLEJ ROIC/RSO card which is valid for three years.

(d) ROICs must be certified in writing by the CO of that unit or "By direction" authority for the weapon system and ammunition for which they are responsible. For weapon systems equipped or dependent on lasers, the ROIC must be knowledgeable of laser hazards, proper employment and all laser safety procedures and must take the Marine Net Range Laser Safety Course (Course Title RTAMRLSOAA) or the ALSO Course (Laser Safety) to be assigned as a RLSO for laser devices. The ROIC is responsible and accountable for conduct of the activity and adherence to governing regulations and safety requirements. ROIC must be able to fully influence the conduct of the entire training event.

(2) Duties

(a) Ensure the overall safe conduct of all training and proper use of the installation/training complex. ROIC is a supervisory position. ROIC will not participate in the training event. ROIC will have no other duties/assignments or fire any weapon

while acting as the ROIC. ROIC must be physically present at the training event at all times.

(b) Report to Range Control (Building 54 on Post Lane) "No Later Than" **(NLT) 1200** the work day prior to the scheduled training events (Monday-Thursday) to properly check-out or up to eight working days in advance to sign for the assigned RTAs and facilities and receive and sign for the designated range safety equipment. All live-fire ranges shall be checked out by the using unit before any federal holiday liberty periods. Range Control reserves Fridays to check out large training events only. Arrangements must be made with the Range Control Scheduling Section to check out a RTA or training facility on a Friday.

(c) Receive a range safety briefing from the installation range control organization on the use of the assigned training complex. Only the ROIC/RSO can receive the brief.

(d) Be physically present at the RTA or training facility at all times. ROIC must have this Order, the applicable Range Card, a valid ROIC/RSO Card, signed ORM worksheet, unit SOP, Safety Brief, relevant ammunition, weapons, assigned equipment TMs, and FMs, other required equipment and a SRR (if applicable) onsite when training.

(e) Determine when it is safe to fire in accordance with applicable regulations and the requirements of this Order.

(f) Ensure required communications are established with BLACKBURN and maintained at all times. Ensure receipt of final clearance to conduct live-fire or control training from BLACKBURN. The ROIC must maintain dual communications with BLACKBURN at all times.

(g) Ensure the RSO has been certified in writing by the CO for the weapon(s) or weapon systems to be used on the range scheduled in RFMSS and signed for.

(h) Ensure all personnel have a working knowledge of the weapon systems and ammunition being employed and wear the appropriate protective equipment (Level 0/Level 1/Level 2/Level 3) as per reference (a), to include helmets, flak jackets, hearing, and eye protection during all live-fire events. The helmets/flak jackets are not required during annual known distance marksmanship type training (Pistol/Rifle Only), static Battle Sight Zeroing (BZO)/Zeroing live-fire for the rifle and pistol only. Personnel involved in law enforcement-type training are permitted to substitute their equivalent protective equipment in lieu of helmets and flak jackets.

(i) Ensure proper supervision of personnel performing immediate action, misfire, hang-fire, and cook-off procedures for that

weapon system and ammunition. The ROIC will contact EOD via BLACKBURN for guidance on proper handling of arms, ammunition, and explosives (AA&E) after a malfunction/dud/misfire. Malfunctioned or misfired AA&E will not be returned to the Base ASP unless it is determined to be safe for handling, storage, and transportation by EOD or other competent authority.

(j) Ensure all weapons and ammunition malfunctions, duds, defective ammunition and accidents are reported to Range Control and to higher headquarters MCIEAST-MCB CAMLEJ ESO as directed, per references (l) and (m), and other applicable orders.

(k) Ensure safe laser operations and laser safety per references (n) and (o) and this Order when conducting laser training.

(l) Ensure adequate medical support (Corpsman/Medic or contracted emergency medical technician (EMT), certified in writing, and approved civilian medical EMTs once approved by the Installation Commander) with required medical gear and a government safety vehicle are present on the RTA or training facility as required.

(m) Ensure ammunition and explosives are properly handled, transported, stored, secured, and accounted for within the training complex from the time of receipt to the time of expenditure or turn in. The using unit must maintain security at all times when dealing with all AA&E.

(n) Maintain records of "HOT" and "COLD" times, total number of personnel trained; ammunition expended by Department of Defense Identification Code (DODIC); and reported daily to BLACKBURN after the scheduled training event.

(o) Ensure proper planning for all live-firing training exercises and maneuvers are coordinated with Range Control as required.

(p) During a Combined Arms/Tactical Air Control Party (TACP) shoot, the minimum number of ROICs and RSOs are listed in Figure 1-3.

(q) Establish all control measures for the Surface Danger Zone (SDZ)/Weapons Danger Zone (WDZ)/target area (Impact Area) are in place, enforced, and supervised to prohibit entry by unauthorized personnel/vehicles.

(r) Ensure coordination and approval has been gained from the RCD for all civilian personnel to include contractors that will be entering the RTAs and training facilities.

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(s) Brief the RSO on the duties to be performed in support of the training event. Clearly establish the requirements for the RSO to brief the ROIC of the unit on the safety of the RTA or facility and the readiness to commence live-fire operations/training prior to the start of all live firing.

(t) Comply with all Camp Lejeune's environmental regulations/orders/policies and the current edition/version of the Environmental Handbook for Trainers/Camp Lejeune "Quick Look" Environmental Guide.

(u) Ensure a thorough shakedown of all ammunition, vehicles, and personnel, and weapons/weapon system checks are conducted prior to leaving the RTA or training facility.

(v) Units must have detailed safety checks in place and supervised when using blank ammunition and live ammunition are used together during the same scheduled training event/time period.

(w) Implement ORM for all phases of the training being conducted on RTAs and training facilities.

(x) The ROIC will inventory and sign for all ammunition, explosives, training devices and assigned DODICs on the NAVMC 11381 Expenditure Report. Ensure that the Class V (W) Expenditure Report (NAVMC Form 11381) is completed at the range per reference (p) signed by the ROIC and turned in within 48 hours to your unit S-4/G-4 Ammunition Section.

(y) Return all safety equipment within 24 hours to Range Control upon completion of the live-fire event and submit any range maintenance issues to Range Control.

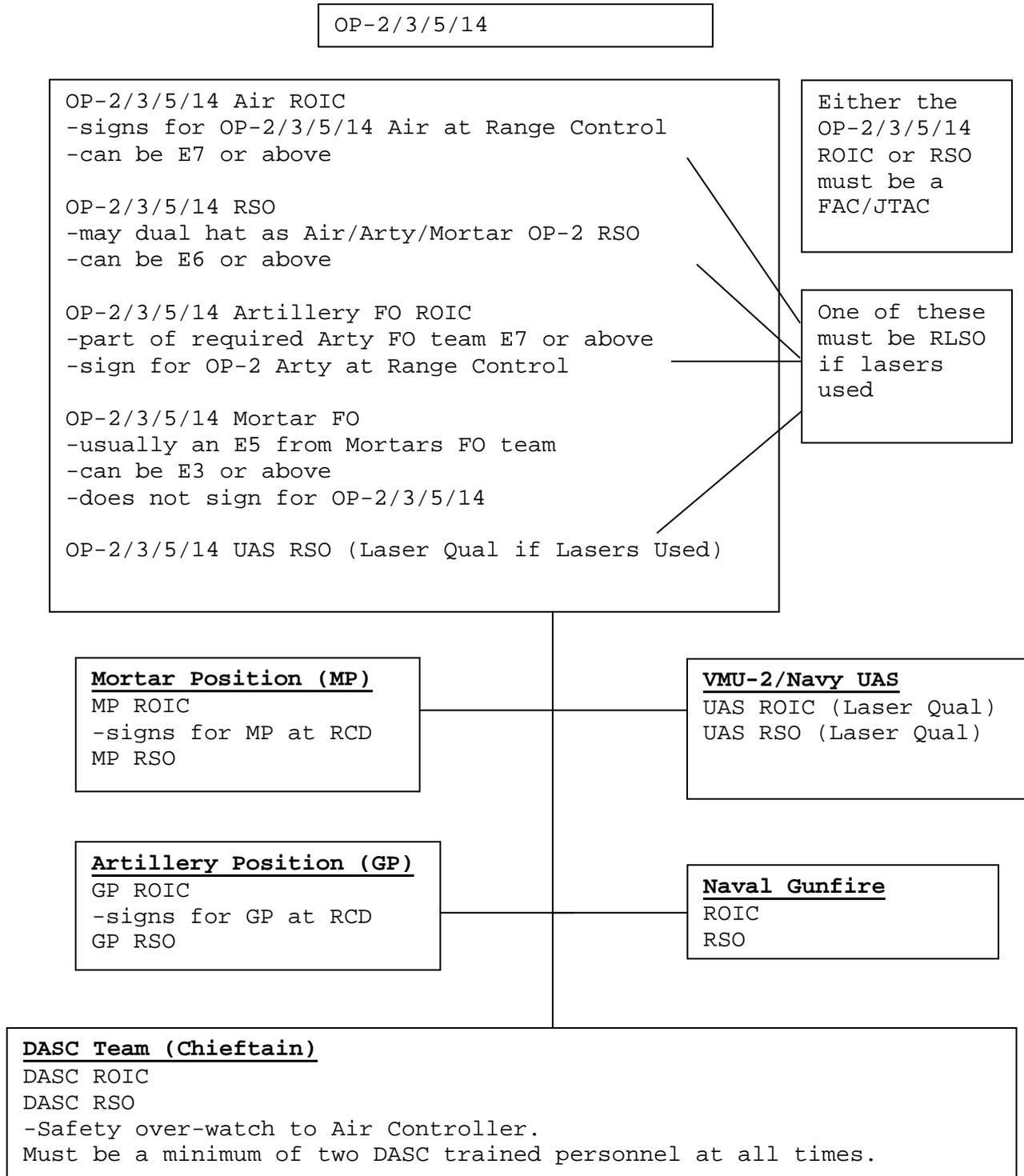


Figure 1-3.--Personnel Requirements for Combined Arms/TACP Shoot

h. Range Safety Officer (RSO)

(1) Qualifications

(a) Must be a commissioned officer, warrant officer, or SNCO (staff sergeant and above). RSO duties/responsibilities will not be delegated to other personnel. **Requests to deviate from the established rank criteria must be signed by the CO (Not "By Direction") and endorsed by at least an (O-6) Colonel within that units chain of command and must be submitted via the chain of command (e.g., Bn, Regt, Div, MEF) to the CG MCIEAST-MCB CAMLEJ at least 30 days prior to the training event.** Certified civilian contractors or Civil Service employees that are GS-5 or above when performing the duties as RSO in conjunction with the Statement of Work (SOW) and request in writing by the unit CO and approved by the Range Control Officer, G-3/5 MCIEAST-MCB CAMLEJ.

(b) Must have completed the Marine Net, Distance Learning Course "Range Safety," and have a valid completion diploma that is kept current. This course is a prerequisite for enrollment in the Range Control Information Safety Brief. A current copy must be provided to Range Control.

(c) Must have received the Range Control Information Safety Brief and have in their possession a valid ROIC/RSO card and have been certified by their CO in writing on all weapons systems/ammunition to be used during live-fire training.

(d) To support the following specialized training events, the RSO may be a sergeant (E-5) with current certification in their specialty; HRST, HST, Dive Supervisor, Dive Master, DZSO/Jump Master, or EOD. Sergeants must be approved by his/her CO in writing; must have completed the Marine Net, Distance Learning Course "Range Safety Course Title RTAMRSOCAA;" and have a valid completion diploma /certificate to attend the Range Control Information Safety. Sergeants must keep their Marine Net Range Safety Course current (diploma/certificate is valid for three years) to stay within the requirements of current diploma/certificate and current RSO card to act as RSO.

(2) Duties

(a) **The RSO is a safety supervisory position only.** As such, the RSO is responsible to the ROIC for the enforcement of all applicable range and general safety regulations for that weapon ammunition/high-risk training event at all times contained in this Order, the current edition of reference (a) and other appropriate

references as required. The RSO will ensure a copy of this Order pertaining to the range in use and ORM worksheet are maintained and available on the range at all times. **The RSO must be physically present at the training event at all times.**

(b) **RSOs will have no other additional duties/assignments** or fire any weapon while performing the duties as RSO. The RSO must be in a full duty status. Assistant Range Safety Officer (ARSO) and Position Safety Officer (PSO) may be appointed as required by the unit conducting the training to positively control all shooters, crew-served weapons, or live-fire maneuvering elements as required /directed.

(c) Receive a range safety briefing from the installation range control organization on the use of the assigned training complex. Only the ROIC/RSO can receive this brief.

(d) Ensure weapons, ammunition, and personnel are properly positioned/staged before granting clearance to fire.

(e) Ensure that only the authorized ammunition, weapons, and explosives listed on the range request, scheduled in RFMSS, signed for, and listed in the Range Order, to include proper charge /increments, explosive weight limits (NEW), fuses, and fuse settings, are used. Ensure that firing data and weapons systems are within prescribed safety limits and are verified/checked. Class V (W) Expenditure Reports NAVMC Form 11381 will be used to document all expenditures of AA&E assets and must be reported within 48 hours.

(f) Ensure that the SDZ and WDZ remain's clear of all unauthorized personnel, vehicles, and any aircraft prior to and during firing. Ensure road guards, gate guards, and tower and air sentries are properly positioned, equipped, and briefed in their duties and assignments. When applicable, secure all barriers, ensure all signs and gates are checked and secured as required. RSO will ensure proper communications are established and maintained between the road guards and tower sentries during live-fire at all times.

(g) Ensure personnel within designated hazard areas wear the proper hearing and eye protection as well as flak jackets and helmets during all live-fire operations as required. The helmets/flak jackets are not required during annual known distance marksmanship type training, static BZO/Zeroing live-fire events for the rifle, sniper rifle, and pistol only.

(h) Obtain authorization from BLACKBURN to commence training and live-fire operations. The RSO, along with the ROIC, shall ensure that the unit monitors the BLACKBURN safety net **AT ALL TIMES**. BLACKBURN is net control via 34.70 FM (squelch off). The frequency for air opertaions is 233.8 UHF and alternate frequency in

the GSRA is 40.10 FM and 38.85 on the east side of New River. Units shall request authorization to go "HOT" and "COLD" from BLACKBURN and give radio checks every 30 minutes on the hour and half hour. If, at any time, a unit loses communications with BLACKBURN, the RSO will put the range in a "CHECK-FIRE" status until communications are re-established. Cellular telephones are authorized for secondary means of communications only to BLACKBURN. The Unit ROIC/RSO will provide the cellular telephone to BLACKBURN that will be listed as the secondary means and it must be checked "to and from" that location (verified) before it can be accepted as the secondary means of communications with BLACKBURN.

(i) Prior to commencing live-fire operations, conduct final coordination with ROIC to include a summary of checks, inspections, and other required actions that the RSO must complete. Verify that required dual communications has been established and a "HOT Status" has been received from BLACKBURN.

(j) Order immediate "CEASE-FIRE or CHECK-FIRE" when any unsafe condition occurs or as directed by BLACKBURN.

(k) Report all accidents, weapons/ammunition malfunctions /defects, sighting of any smoke or fires and any MEDEVAC/CASEVAC to the ROIC and BLACKBURN along with the unit's chain of command. **The unit is responsible for initial mishap/incident site control to prevent site contamination for mishap investigations.**

(l) Upon completion of all live-fire, verify to the ROIC that all weapons and weapon systems are checked, clear, and safe before allowing the removal of any weapons/ammunition from the firing area down range.

(m) During Light Amplification Stimulated Emission Radiation (LASER) operations:

1. Ensure all unit personnel employing all military lasers receive a laser safety brief to include explanations of specific laser related hazards, safety equipment, and detailed range safety procedures.

2. Comply with procedures in Chapter 16 of reference (a), references (n), (o), and Chapter 7 of this Order.

3. Ensure the laser system is approved by the Laser Safety Review Board (LSRB) to be used aboard Camp Lejeune. Observe horizontal and vertical safety limits for the laser range being used.

4. Follow this Order and unit SOPs for laser operations, laser safety, and laser training exercises.

5. Ensure all personnel conducting laser operations, to include personnel in target areas, maintain continuous communications with ROIC/RSO and BLACKBURN.

6. **"CEASE LASER OPERATION"** immediately if communication or positive control of the laser beam is lost or if an aircraft is within your zone of action.

7. The RLSO that has completed the required training may also serve as the RSO or the ROIC if properly trained and certified by the unit commander.

(n) The RSO is appointed by the ROIC to assist him in maintaining supervision (safety) of the firing and all safety requirements within the entire SDZ/WDZ, impact area, and the air space of the range.

(o) The RSO will be the last to leave the RTA/facility following completion of firing/training, ensuring the range (to include surrounding areas/facilities) are clear of all personnel and equipment, properly policed, and inspected. The RSO will ensure all lights, air conditioners/heaters are turned off, windows are shut /locked and checked, the doors are shut, locked, and checked before securing from the range. **DO NOT LEAVE, BURY OR BURN ANY TRASH /DUNNAGE.** If the area is not properly policed, the unit will be denied further access to RTAs until the area is adequately policed, inspected, and approved by a Range Inspector. The ROIC/RSO will receive a range inspection card upon passing of the inspection. Range Control will not accept any RTA or training facility without a range inspection card and all items (range binder, range keys, range flag /flags, orange cones or other items issued within 24 hours) issued out are returned to Range Control. This range inspection card acts as proof that the RTA or training facility was inspected by a Range Inspector and properly cleared.

(p) In the event of an accident/incident (i.e. round out-of-safe, MEDEVAC/CASEVAC, downed aircraft, injury/fatality or others) a **"CEASE-FIRE"** command will be given on that RTA or training facility and adjoining ranges, if necessary. The unit/command will report the incident/accident immediately to BLACKBURN. **The unit is responsible for initial mishap/incident site control/securing of the site to prevent site contamination for mishap investigations.**

(q) Immediately report locations of all smoke sightings /forest fires/grass fires (grid/RTA) and wind direction, to BLACKBURN and standby for guidance from BLACKBURN and the Fire Department.

(r) Submit UXO/dud reports (location by grid and type of UXO/dud or UXO/duds) as per unit SOP and this Order. All ammunition malfunctions/defects must be reported to BLACKBURN.

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(s) Call BLACKBURN upon completion of live-fire to report number of rounds fired by DODIC, type of ammunition fired, and total number of personnel (all) trained.

(t) Hold a shakedown of all personnel, weapons, vehicles, and equipment to ensure that no unauthorized brass or live-fire ammunition or other training devices exit the range to include sources of ammunition.

(u) Ensure no pyrotechnics such as smoke/CS/pop-ups, and other flares, training devices are released or fired at any time without proper clearance from BLACKBURN. None of the items listed above are authorized in the GSRA Complex.

(v) Ensure all tactical vehicles are parked in designated parking areas only. Vehicles will not be parked on access roads, tank trails, on or near the RTAs or training facilities not scheduled by that unit. Vehicles will not park on the shoulders, or main thoroughfares, areas that have grass, seeded or otherwise planted/re-planted areas such as forestry sections/food plots. Privately-Owned Vehicles (POVs) are not authorized on RTAs or training facilities unless issued a Range Control POV Pass. Violators will be reported to Provost Marshal's Office (PMO)/Conservation Law Enforcement Office (CLEO) for action.

(w) To support the following specialized training events, the ROIC/RSO may be a sergeant (E-5) with current certification in their specialty; HRST, HST, Dive Supervisor, Dive Master, DZSO/Jump Master, Cast Master, Breacher, and EOD. Sergeants must be approved by his/her CO in writing, must have completed the Marine Net, Distance Learning Course "(Range Safety)" and have a valid completion diploma to attend the Range Control Information Safety Brief. Sergeants must keep their Marine Net Range Safety Course current (diploma is valid for three years) to stay within the requirements of current diploma and current CAMLEJ ROIC/RSO Card to act as the ROIC/RSO aboard this Installation.

## 6. Safety/Risk Management

a. Safety is the responsibility of every individual and all unit commanders/leaders at all times while conducting training. Safety and operations must intertwine so that risk management and safety are a part of the detail planning and execution of all missions, exercises, live-fire events and daily evolutions. The key to safe training is the understanding that each and every individual, regardless of rank, is a safety manager. Anyone can call a "CEASE-FIRE" so that the activity in question may be halted until the unsafe condition has been corrected.

b. A cease fire is mandatory and/or prescribed action taken when the following happens/occurs:

- (1) Communications is lost with Range Control/BLACKBURN.
- (2) A weapon or ammunition malfunction/defect occurs which must be reported to BLACKBURN.
- (3) A safety violation, accident, incident, lost Marine, or any MEDEVACs/CASEVACs occurs which must be reported to BLACKBURN.
- (4) A fire/smoke is observed, which must be reported immediately to BLACKBURN and the unit must go into a cease fire. Units must report wind direction if possible.
- (5) Round/Rounds are suspected of landing or detonating outside the impact areas or safety limits (Round Out-of-Safe).
- (6) When personnel, vehicles, or aircraft enters the SDZ/WDZ or vertical hazard area of that RTA or training facility.
- (7) Live-fire training presents the greatest danger to life and limb. As such, any individual has the duty to call "CEASE FIRE" when any unsafe condition is observed. This call can be made by voice, radio, telephone, or any other audio or visual means. The unsafe condition will be brought immediately to the attention of the ROIC and RSO. The ROIC and RSO will report the "CEASE FIRE" immediately to BLACKBURN. Once the "CEASE FIRE" issue has been resolved, the ROIC/RSO will determine if and when safe training can resume.
- (8) Where conflicts occur with safety instructions contained in MCOs, Operator Manuals (Caution, Warning, and Dangers), MCWPs, MCRPs, FMs, TCs, FMFMs, SOUMs, and TMs, reference (a) will govern.

c. ORM. The ORM process will be used to assess/manage risks during training. Units using ranges will employ ORM procedures to identify operational hazards and implement appropriate controls in order to minimize training mission risks. Formal ORM documentation is required on all live-fire maneuver exercises, large training exercises, and for any request for deviation from this Order. An ORM Worksheet will be submitted from training units prior to training.

d. Safety Briefs. The following briefs are required to be given by the ROIC/RSO before conducting training in the RTAs located in the Camp Lejeune Range Complex:

- (1) UXO and EOD
- (2) Range Safety/Laser Safety

(3) Ammunition Handling and Accountability

(4) Restricted Areas (i.e., graves, construction sites, closed roads/routes, known hazardous areas/situations, etc.). Units and Base organizations will notify Range Control/BLACKBURN of potential hazards in the training complex.

(5) ROIC/RSO will include Safety of Use Message(s) (SOUMs), Notice(s) of Ammunition Reclassification (NAR), Ammunition Information Notice(s) (AIN), and Cleared for Overhead Fire supplement(s) if applicable to the range safety briefs. This is to ensure all personnel conducting and participating in live-fire training events are aware of any potential hazards related to the AA&E being utilized.

e. UXO may be present within the RTAs, resulting in ground access restrictions. Units shall stay away from all ordnance. Note or mark the area in which the object is found and report its location to Range Control/BLACKBURN immediately.

7. Training Accidents and Incident Reporting

a. Range Control shall be informed of any accident, incident, or injury, regardless of severity, that occurs within Camp Lejeune RTAs.

b. Camp Lejeune Reporting. Any unit operating in the Camp Lejeune RTAs involved in any accident or incident will immediately report the situation to Range Control. If additional information or reports are required, the unit will be notified. In the event of serious injury or death, units will preserve the scene of the accident until released by the investigating officer or the unit CO. In the event of an accident resulting in a death, a representative from the deceased's organization will be assigned to accompany the remains.

c. Parent Command Reporting. Reports submitted under this paragraph are not substitutes for reports required by appropriate directives, nor do they constitute notification of a unit's chain of command. Reports submitted per directives, to include notification within the unit's chain of command, shall include the CG MCIEAST-MCB CAMLEJ as an information addressee.

d. Reportable Incidents. Examples of accidents or incidents requiring a report to Range Control are:

(1) Aircraft accidents and both tactical vehicle and POV accidents in the training complex;

(2) Unintentional jettison of any material from an aircraft;

(3) MEDEVACs/CASEVACs;

- (4) Forest fire/smoke in and on the RTAs;
- (5) Any explosive mishap, to include duds and/or malfunctions;
- (6) Any rounds out of safe;
- (7) Missing, lost, found or stolen munitions/weapons/gear;
- (8) Injuries from minor to death;
- (9) Anything that is liable to create interest or inquiries from the local civilian community;
- (10) Lost personnel;
- (11) Weapons/ammunition/tactical vehicle mishap/malfunctions.
- (12) Possible hazardous areas/hazardous situations.

e. Training Accident Reports. Training Accident Reports will include the information as detailed in this Order. Range Safety personnel may be used to relay or gather sensitive accident and/or medical information.

#### 8. Lost Personnel

a. The training unit is expected to have organic assets (vehicles/personnel) to initiate Search and Rescue (SAR) operations.

b. Upon notification of a missing individual, the unit will immediately advise Range Control/BLACKBURN, which will notify EOD if required, as well as PMO, so they can standby to assist. BLACKBURN will place all ranges near that site into a "Check Fire" until further notice.

c. The unit will conduct initial search, ensuring the location where the individual was last seen is protected.

d. Any SAR effort which requires entry into RTAs will be coordinated through Range Control/BLACKBURN. This policy also extends to civilian SAR efforts.

e. If the unit is unable to locate the missing person and requires assistance, contact Range Control, who will contact the MCIEAST-MCB CAMLEJ G-3/5 for helicopter support and PMO for additional ground support.

#### f. Lost Personnel Procedures

(1) Any lost/missing Marine, Sailor, Soldier, Airman, Coast Guardsman, hunter/hunters, or any other person aboard Camp Lejeune must be reported to BLACKBURN immediately by the command/unit and remain in contact with BLACKBURN at all times.

(2) The following information must be reported as required.

(a) Name, rank, unit, and description;

(b) Date, time, location (grid/TA) last seen;

(c) Physical and medical status (injured/uninjured) of Marine/Sailor/person;

(d) Type of training being conducted at the time disappearance;

(e) Known sensitive items being carried by the Marine/Sailor/person like weapons, night vision devices, etc;

(f) Request for assistance (PMO, PEDRO, Fire Department, CLEO, etc.); and

(g) Follow-up information as required.

(3) The lost Marine's/Sailor's/person's unit is responsible for conducting the search and notifying BLACKBURN once the Marine/Sailor/person is found.

9. Missing, Lost, Stolen, or Recovered (MLSR) Government Property Reporting

a. Report. Report any MLSR Government property to Range Control/BLACKBURN immediately. Range Control/BLACKBURN will record the information and determine what, if any, follow-up action is required. Range Control/BLACKBURN will obtain the following information:

(1) Location of incident (grid coordinates preferred);

(2) Date and time of incident reported;

(3) Name and contact information of individual reporting the incident;

(4) Material description to include quantity and types;

(5) National Stock Number and lot number (where applicable);

and

(6) Where ammunition and explosives are involved, RCD will advise the individual not to remove item(s) for safety reasons and to facilitate follow-on investigation requirements.

#### 10. Deviations

a. Requests for deviations from this Order and the current reference (a) may be granted based on critical mission requirements and will be considered on a case-by-case basis. Deviations are limited to:

(1) Reducing SDZ, laser SDZ, and WDW dimensions when terrain, artificial barriers, or other compensating factors make smaller danger zones safe.

(2) Modifying prescribed firing procedures appropriate for a state of training of participating personnel to increase training realism.

(3) Allowing personnel not authorized by Chapter 3 of reference (a) within the danger zone, unless prohibited.

(4) Requesting a rank deviation from Appendix I of this Order such as a SSGT being a ROIC on a dud producing range.

b. Deviation requests must be signed by the unit's CO (not "By direction" or "acting") and must be endorsed by a (O-6) Colonel or higher in the unit's chain of command prior to submission to the CG MCIEAST-MCB CAMLEJ (G-3/5) at least 30 days in advance of scheduled training and in accordance with reference (a). Deviations must be updated and renewed annually if the requirement remains in effect.

c. Completed, reviewed, and signed ORM Worksheets shall accompany all deviation and any Special Range Requests.

d. Requests for a waiver of Range Cards and this Order will be considered a SRR. Procedures for obtaining a SRR are discussed/listed in this Order and Appendix E.

#### 11. Medical Evacuation/Casualty Evacuation Procedures

##### a. General

(1) MEDEVAC refers to U.S. Army, Navy, USMC, and USCG patient movement using designated tactical or logistic aircraft, boats, ships, and other watercraft temporarily equipped and staffed with medical attendants for enroute care.

(2) CASEVAC is the unregulated movement of casualties that includes movement to and between medical treatment facilities.

(a) The designated, government safety vehicle is the primary means of non-emergency MEDEVAC.

(b) Other Government vehicles may be used to transport routine injuries to local medical clinics in order to allow the safety vehicle to remain on-scene. The Range Control/BLACKBURN must be notified when any personnel are removed from the RTA for medical treatment. Range Control/BLACKBURN will determine if training may continue.

(c) Ground transportation by Emergency Medical Support and Advanced Life Support ambulance is the primary means of emergency MEDEVAC/CASEVAC (i.e. Priority and Urgent). Range Control shall be notified immediately of all MEDEVACs/CASEVACs.

(3) Range Control will contact Fire Dispatch (911), who will dispatch the appropriate emergency medical response. The Senior Fire Department Officer/Official or Senior Medical personnel on-scene will be in command of the incident.

(4) All training/firing injuries that occur within RTAs or training facilities controlled by Range Control (except MCOLF Oak Grove) requiring MEDEVAC/CASEVACs shall be reported directly to BLACKBURN by the unit/command, even if the unit uses its own assets to conduct the evacuation. BLACKBURN is manned 24 hours a day in order to facilitate, coordinate, and document all training-related MEDEVACs/CASEVACs within Camp Lejeune's training complex. It is critical the incident details, victim injuries, and assets necessary to best address victim injuries are clearly relayed to BLACKBURN to ensure a timely response. The unit is responsible for initial mishap/incident site control to prevent site contamination for mishap/Judge Advocate General investigations. These procedures also apply to all contractors/civilians aboard Camp Lejeune that get injured in or on RTAs and training facilities.

(5) The responsibility for determining the necessity for a MEDEVAC/CASEVAC rest with the ROIC, RSO, or the onsite Commander based on the advice from the medical personnel present. The method of evacuation shall be determined by the ROIC/RSO/Unit CO/onsite Commander. Evacuation of all casualties will be accomplished as expeditiously as possible, consistent with the safety and the medical status of the casualty.

(6) **RED SIGNALS (SMOKE, PYROTECHNICS)** are reserved for use during actual emergencies only. Any unit or aircraft observing a red signal shall immediately report it to BLACKBURN. Red signal devices being used for training must be pre-coordinated with Range Control/BLACKBURN before being used.

(7) All ROICs and RSOs conducting training that involve the firing of small arms, artillery, mortars, mines, missiles, rockets, demolitions/explosives, urban breaching, hand grenades, or any other high-risk/high-hazard live-fire activities will have a competent medical corpsman/medic with appropriate medical supplies/kit, government safety vehicle, and other required equipment present on the RTA or training facility at all times.

(8) All ROICs and RSOs conducting other high risk training activities such as HRST, HST, Parachute Operations (PARAOPS), Dive Operations, Open Water Operations, Scout Swimmer, Urban Assault Climbing, CAST Operations, Fast Roping, Rappelling, SPIE, and other events as directed will have a competent medical corpsman/medic with appropriate medical supplies/kit as required, government safety vehicle and other equipment present for that high-risk event.

(9) Trauma patients will be transported to the most appropriate medical trauma center via 911 system on the advice of the Naval Hospital Emergency Room or the on-scene emergency responders.

(10) There is no standby MEDEVAC/CASEVAC aircraft stationed at Camp Lejeune. The primary means of MEDEVAC/CASEVAC is by ground transportation. The primary means of MEDEVAC/CASEVAC is the government safety vehicle for non-emergency MEDEVACs.

b. Categories of MEDEVAC/CASEVAC

(1) Urgent (Life Threatening). Emergency patients for whom speedy evacuation is necessary to save life or limb, to prevent complication of serious illness or to avoid permanent disability.

(2) Priority (Non-Life Threatening). Patients who require specialized treatment not available locally and who are liable to suffer unnecessary pain or disability unless evacuated with the least possible delay.

(3) Routine (Minor Injuries). Patients whose immediate treatment requirements are available locally, but would definitely benefit by ambulance evacuation.

(4) Mass Casualty. A mass casualty is a series of injuries with multiple priority and urgent medical patients.

c. Precedence. In order to help the assets determine the severity of a MEDEVAC/CASEVAC, the following priorities shall be assigned and passed to the responsible authority when requesting a MEDEVAC/CASEVAC.

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(1) Urgent. Evacuation of critically wounded or injured that requires early hospitalization is an urgent precedence and is a matter of life or death. Examples requiring urgent MEDEVAC/CASEVAC include:

(a) Chest pain that does not go away when sitting for a few minutes;

(b) Intense and uncontrollable pain;

(c) Head injury with loss of consciousness;

(d) Deep lacerations with uncontrollable bleeding;

(e) Chemicals splashed in the eyes;

(f) Severe asthma attacks with shortness of breath that prevents talking;

(g) Possible poisoning or overdose;

(h) Sudden weakness on one side of the body;

(i) Serious fractures, broken bones; or

(j) Poisonous Snake bite(s).

(2) Priority. Evacuation of seriously wounded or injured personnel and require early hospitalization, but whose evacuation is **not** a matter of life or death is a prioritized event. Examples requiring priority MEDEVAC/CASEVAC include:

(a) Nausea and vomiting that will not stop;

(b) Asthma;

(c) Minor reactions to medications;

(d) Minor cuts that need to be sutured, but the bleeding is controllable; or

(e) Possible fractures of wrist or ankles but no deformity, numbness, or bluish discoloration;

(3) Routine. Evacuation of a deceased service member, a patient with minor illness, or a patient requiring transfer between medical facilities for further treatment is a routine event. Examples requiring routine MEDEVAC/CASEVAC include:

(a) Headaches;

(b) Colds, flu, and sore throats;

- (c) Skin rashes; or
- (d) Minor cuts and scrapes;

d. MEDEVAC/CASEVAC Assistance Procedures

(1) In the event of MEDEVAC/CASEVAC, the ROIC/RSO or the onsite commander shall immediately contact and remain in constant communication with BLACKBURN until directed otherwise. The ROIC/RSO shall pass the following information to BLACKBURN:

(a) Category of MEDEVAC/CASEVAC request (competent medical personnel, the senior Marine (ROIC/RSO, or the onsite Commander) shall determine the extent of the medical condition):

- 1. Urgent - Life Threatening
- 2. Priority - Serious but not life threatening
- 3. Routine - Minor Injuries

(b) Air or Ground Transportation

(c) Number of Patients

(d) Type of injury/injuries (description of injury), wound, patient(s) condition and if corpsman is present. If special equipment is needed for patient care, it must be reported to BLACKBURN.

(e) Location of patient(s): grid coordinate, main roads, prominent terrain feature, prominent man-made feature, live-fire range number, or TA letters.

(f) LZ marking (panels, smoke, and lights) and all hazards to the aircraft (if applicable) must be reported.

(g) Source of injury (e.g., gunfire, vehicle, shrapnel, or others as required).

(h) Patient(s) age, sex, blood type, name, grade, service, and the unit/command.

(i) Other information as required, to include factors which may generate public interest, if any. Unit may be required to secure the site.

(2) Primary means of reporting this information shall be telephone. If a telephone is not available, it will be transmitted to BLACKBURN via radio. ROIC/RSO shall speak directly to BLACKBURN with

all pertinent information. Personnel reporting emergencies will maintain communication with BLACKBURN until otherwise directed by BLACKBURN. Routine radio traffic for all RTAs and training facilities will be suspended until the MEDEVAC/CASEVAC situation is resolved.

(3) **Ground transport is the primary MEDEVAC/CASEVAC means at MCIEAST-MCB CAMLEJ**; using organic safety vehicle or requesting an ambulance for medical emergencies through BLACKBURN. There is no dedicated military aircraft MEDEVAC/CASEVAC available/on-call at Camp Lejeune. If a military aircraft is airborne and available to take the MEDEVAC/CASEVAC mission, BLACKBURN will coordinate the MEDEVAC/CASEVAC with the aircrew and direct them to the designated pickup site (LZ to be determined) which the unit will select and control. The unit must be prepared to control the aircraft both during daylight or darkness, as required or as directed. However, at most Camp Lejeune RTAs and training facilities a ground ambulance can arrive at the evacuation site more rapidly, with medical personnel with more sophisticated lifesaving support equipment. Units shall provide guides for the ambulance from a main service road to the exact location on the ground. If in the opinion of the ROIC, RSO, unit leadership, and corpsman, the patient can be transported to the **nearest paved hard-surface road** to speed up the process. If the unit is training within the GSRA training complex, Highway 17 or Highway 50 shall be used. In most circumstances, medical evacuation by unit safety vehicle will be the most effective means of transportation. Good judgment, based on the patient condition, will always be the paramount factor in determining which mode of transportation (unit safety vehicle or ambulance) shall be used.

(4) BLACKBURN will put selected ranges into a "CHECK-FIRE" as required or directed. BLACKBURN will notify the Naval Hospital, while continuing to monitor the radio net for updates.

(5) BLACKBURN will notify the appropriate Unit Commander, the MCIEAST-MCB CAMLEJ CDO/Unit Officer on duty, PMO, Fire Department, AC/S, Security and Emergency Services (SES), Director of safety, Naval Hospital (if required) and the Director, RCD, RCO/Range Control Operations Officer (RCOO)/RSS, and all others as required.

(6) Under no circumstances will the names or units of anyone killed or injured on government property be released to media representatives or other members of the public. The appropriate Unit Commander shall notify the PAO, which will release any required official statement. If an OPREP-3 SIR or PCR is released by a command/unit the command/unit must ensure the CG MCIEAST-MCB CAMLEJ is included as an informational addressee on the message/report.

12. Casualty Procedures for Diving, Internal Passenger Helicopter Aircrew Breathing Device (IPHABD), and Underwater Egress Trainer (UET) Accidents

a. Prior to scheduling or conducting any training that uses compressed air; IPHABD and UET (Helo Dunker) operations, coordination with the Master Diver at 2d Reconnaissance Battalion (2d Recon Bn) Dive Locker, (910) 450-7710/7711/7742 or Marine Special Operations Regiment (MSOR) chamber, (910) 440-1290/1291 is required to ensure availability of their recompression chambers a minimum of seven days prior to the planned evolution. This is mandatory to ensure proper preparation and assignment of personnel necessary to operate the Recompression Chamber if needed. Scheduling is subject to 2d ReconBn and MSOR operational commitments. 2d Recon Bn should be contacted as the primary, MSOR as the secondary. If 2d Recon Bn or MSOR chambers are not available, MCIEAST-MCB (911) Emergency Consolidated Communication Center (ECCC) will coordinate recompression chamber use with Duke University Medical Center by calling (919) 684-6726.

b. Contact 911 to request an ambulance for all diving accidents and pool casualties. While awaiting response, the Diving Supervisor or senior diving EMT will notify BLACKBURN and identify and evaluate the patient for turn over to the Base EMT. If casualty is verified to be that of a diving nature (AGE, DCS Type I, or DCS Type II), the patient should be taken directly to the primary or secondary Recompression Chamber after positive notification has been made with the Chamber Supervisor. Area 2, Area 5, Courthouse Bay, and UET Training Tanks all have red "direct hot line" connected directly to the ECCC to request immediate medical support in case of emergencies at those locations.

13. Forest Fire Danger and Ratings

a. General. All brush, woods, forest, and range fires, regardless of size or location aboard MCIEAST-MCB CAMLEJ, shall be immediately reported to BLACKBURN (34.70 MHZ or (910) 451-3064/4449) and BLACKBURN will notify the Fire Department. Training units will provide firefighting details to combat grass or brush fires if requested, but at no time will firefighting details go down range or into any impact areas (G-10, K-2, and N-1/BT-3). Units shall not use Individual Combat Clothing and Equipment. At no time will a unit place Marines in danger or harm's way in an effort to fight wild fires. Units must go into a "CHECK FIRE/CEASE FIRE" immediately report the direction the smoke may be traveling from possible wild fires to BLACKBURN. Use extreme caution on any tank trail or hard-surface road from drifting smoke or any other condition due to the fire. All units assigned to Camp Lejeune during peak fire season/high fire condition shall have an evacuation route and plan in place.

b. Fire Readiness Planning and Readiness Plans. Each March/September, MCIEAST-MCB CAMLEJ, RCD will publish the fire readiness plan message to remind all units/commands of their responsibilities during the forest fire season. Readiness levels are set by the North Carolina Forestry Service, located in New Bern, and include MCAS New River, MCAS Cherry Point, MCB CAMLEJ, and the surrounding counties. Fire Readiness planning establishes training restrictions and preparation commensurate with the wild fire danger by establishing forest fire danger ratings as follows:

(1) Fire Readiness Plan 1. Fire danger is low. No restrictions on authorized RTAs and training facilities. Normal safety precautions will be followed.

(2) Fire Readiness Plan 2. Little or no chance of fire, occasional fire activity. No restrictions on authorized RTAs and training facilities. Normal safety precautions will be followed.

(3) Fire Readiness Plan 3. Fire danger is moderate. The use of certain ranges, training facilities, and TAs may be curtailed at the discretion of the CG MCIEAST-MCB CAMLEJ. Normal safety precautions will be followed. Caution shall be exercised in the use of all pyrotechnics, smoke type devices or any training device that could start a fire.

(4) Fire Readiness Plan 4. Normal Fire Season. The use of certain RTAs and training facilities may be curtailed at the discretion of the CG MCIEAST-MCB CAMLEJ. Warming fires, when specifically authorized and approved, will be used only in designated places and only under supervision of a SNCO or officer at all times. Pyrotechnics/smoke type training devices are restricted to authorized live-fire ranges only.

(5) Fire Readiness Plan 5. Fire danger is very high/severe. All tracer/pyrotechnic/smoke/incendiary/white phosphorous/illumination type ammunition will be restricted to the G-10, K-2, and N-1/BT-3 Impact Areas only. Tracer ammunition (all calibers) is restricted to the G-10, K-2, and N-1/BT-3 Impact Areas only. Authority to use tracer ammunition in GSRA or on any other ranges will be a situational, MCIEAST-MCB CAMLEJ command decision. Smoking is permitted only in locations specifically designated by the training unit commander to reduce the fire hazard. These areas will be fireproofed and supervised. The use of generators will be restricted to areas that have been fireproofed for at least a 50 ft. diameter circle around each generator. Warming/camp fires are not authorized.

(6) Fire Readiness Plan 6. Fire danger is critical. All military training in forested areas and other activities likely to start forest fires, such as smoking, will be suspended/halted. Only ball ammunition, fragmentation grenades on grenade ranges, demolition

materials on assigned ETAs, high explosive artillery, and mortar ammunition on designated ranges/impact areas can be used during Readiness Plan 6. All other items listed in Fire Readiness Plan 5 will also apply. MV-22 Squadrons will observe the following procedures to further reduce the risk of starting fires when loitering on the ground; 75 degree nacelle, 75 percent engine power, and minimize time on deck.

(7) Fire Readiness Plan 7. Fire danger is extreme. All training will cease and troops will come out of the field. Request to train during Readiness Plan 7 will be submitted to the CG MCIEAST-MCB CAMLEJ via the AC/S, G-3/5 and the Director, RCD.

(8) Fire Readiness Plan 8/Blow-up Alert. An alert to units that conditions could quickly elevate from level 4 to level 7 or higher. All training will cease and all assigned units will come out of the field as directed.

**Note: As directed by the CG MCIEAST-MCB CAMLEJ, as a temporary control measure a higher Fire Readiness Plan could be set/assigned due to extreme forest fire/wild fire condition and availability of firefighting crews and equipment aboard the Installation.**

c. Fire Department. Firefighting personnel will allow fires in the impact areas to burn until they reach the outside of the impact area. Firefighting personnel will not enter the impact areas or other assigned areas that have been designated by the RCO.

d. Prescribed Burns. Prescribed burning is routinely scheduled in RFMSS and conducted by Base Forestry to stimulate new growth, control insects, clear underbrush, reduce the fire hazard, open up areas for better training for military personnel, and reduce the fuel on the ground. Do not enter TAs that are scheduled for burning and don't confuse prescribed burns with wild fires.

e. Catalytic converters and vehicle/aircraft exhausts can get hot enough to catch fire to nearby ground cover/grass. Do not leave the engine running while parked during high fire readiness periods.

#### 14. Destructive Weather Warnings and Conditions

a. General. Storms are a potential and continuous threat to naval shipping, aircraft, military training, on all military installations. Adequate and timely warning, coupled with prompt and effective actions by all unit COs, will reduce loss of life and damage to property due to destructive weather conditions. BLACKBURN will notify all training units of impending destructive weather. For additional/detail information on destructive weather see the current edition of reference (q). Definitions and terms used in this Order are standard throughout the DoD and the National Weather Service (NWS)

and are authorized for use in official messages, records, correspondence, and dealings with other government agencies or individuals.

b. Scope. Destructive or severe weather can occur at any time. Analysis of meteorological and oceanographic data for this area indicates that the most serious damage comes from storms of tropical origin, such as tropical cyclones and tropical storms where winds of destructive force are sustained for long periods of time. Storms of non-tropical origin (gales, thunderstorms, tornadoes) are of shorter duration and generally localized in nature. The annual Atlantic Hurricane Season for the MCIEAST-MCB CAMLEJ area is from 1 June through 30 November. The period of 1 December through 15 March has been established as the snow and ice storm season for coastal southeastern North Carolina.

c. Definitions and Terms. An understanding of the meaning of the terms defined below is critical for proper planning and operations in destructive weather situations.

(1) Tropical Storm Systems

(a) Tropical Depression. A tropical system with sustained wind speeds to 33 knots that is expected to intensify.

(b) Tropical Storm. A tropical system with sustained wind speeds from 34 to 63 knots (39-73 mph).

(c) Hurricane. A tropical system with sustained wind speeds of 64 knots (74 mph) or greater.

1. Category I Hurricane. Sustained winds of 64 to 82 knots (74-95 mph).

2. Category II Hurricane. Sustained winds of 83 to 95 knots (96-109 mph).

3. Category III Hurricane. Sustained winds of 96 to 113 knots (110-130 mph).

4. Category IV Hurricane. Sustained winds of 114 to 135 knots (131-155 mph).

5. Category V Hurricane. Sustained winds above 135 knots (155 mph).

(2) Non-Tropical Storm Systems

(a) Gale. A non-tropical windstorm with sustained surface winds of 34 to 47 knots (39-54 mph).

(b) Storm. Any disturbed state of the atmosphere, especially affecting the Earth's surface, and strongly implying destructive and otherwise unpleasant weather.

(c) Severe Local Storm. A convective storm that usually covers a relatively small geographic area, or moves in a narrow path, and is sufficiently intense to threaten life and/or property. Examples include severe thunderstorms with large hail, damaging wind, or tornadoes. A thunderstorm need not be severe to generate frequent cloud-to-ground lightning.

(d) Nor'easter. A non-tropical cyclonic storm occurring on the east coast of North America, so-called because the winds over the coastal area are from the northeast. Nor'easters may occur at any time of the year, but are most frequent and intense from September through April. Abundant precipitation and winds of gale force or higher are associated with a Nor'easter.

(e) Thunderstorm. A storm accompanied by thunder and lightning with wind gusts of less than 50 knots (58 mph) and/or hail less than one inch at the surface.

(f) Severe Thunderstorm. A thunderstorm that produces a tornado, winds of at least 50 knots (50 mph), and/or hail at least one inch in diameter.

(g) Tornado. A tornado is a violently rotating column of air, usually in the form of a funnel extending from a thunderstorm. Tornadoes move at speeds of approximately 20-35 knots (23-40 mph) and have an average lifespan of 20 minutes. The intensity of tornadoes is defined according to the Fujita Scale (F Scale), which range from F0 to F6: F0 Tornado - wind speeds of 35 to 62 knots (40-71 mph); F1 Tornado - wind speeds of 63 to 97 knots (72-112 mph); F2 Tornado - wind speeds of 98 to 136 knots (113-157 mph); F3 Tornado - wind speeds of 137 to 179 knots (158-206 mph); F4 Tornado - wind speeds of 180 to 226 (207-260 mph) knots; F5 Tornado - wind speeds of 227 to 276 knots (261-318 mph); and F6 Tornado - wind speeds of 277 knots (319 mph) or greater.

(h) Snowstorm. Snowfall with an accumulation of two or more inches that may also involve freezing rain or sleet.

(i) Ice Storm. The term "ice storm" is used to describe occasions when damaging accumulations of ice are expected during freezing rain situations. Significant ice accumulations are usually accumulations of 1/4 inch or greater.

(3) Miscellaneous Terms. The following terms are related to major and local storm systems.

(a) Waterspout. A tight rotary windstorm over water.

(b) Funnel Cloud. A tight rotary windstorm, except that it does not touch the ground.

(c) Storm Surge. An abnormal rise in sea level accompanying a hurricane or other intense storm, whose height is the difference between the observed level of the sea surface and the level that would have occurred in the absence of the cyclone.

(d) Storm Tide. The actual level of sea water resulting from the astronomic tide combined with the storm surge.

(e) Flood/Flooding. The inundation of areas not normally submerged caused by torrential rain and/or storm tide and capable of extensive damage in low-lying areas.

(4) Watches and Warnings

(a) Tropical Systems

1. Tropical Storm Watch. Issued by the National Hurricane Center (NHC) when there is a possibility that tropical storm conditions will occur in the watched area within 48 hours.

2. Tropical Storm Warning. Issued by the NHC when tropical storm conditions are expected to occur at the warned location within 36 hours.

3. Hurricane Watch. Issued by the NHC when there is a possibility that hurricane conditions will occur in the watched area within 48 hours.

4. Hurricane Warning. Issued by the NHC when hurricane conditions are expected to occur at the warned location within 36 hours.

(b) Non-Tropical Systems

1. Gale Watch. A watch for an increased risk of a gale force wind event for sustained surface winds, or frequent gusts, of 34 to 47 knots (39-54 mph), but its occurrence, location, and/or timing is still uncertain.

2. Gale Warning. A warning of sustained surface winds, or frequent gusts, in the range of 34 to 47 knots (39-54 mph) inclusive, either predicted or occurring, and not directly associated with a tropical cyclone.

3. Storm Watch. A watch for an increased risk of a storm force wind event for sustained surface winds, or frequent gusts, of 48 knots to 63 knots (55-73 mph), but its occurrence, location, and/or timing is still uncertain.

4. Storm Warning. A warning of sustained surface winds, or frequent gusts, in the range of 48 to 63 knots (55-73 mph) inclusive, either predicted or occurring, and not directly associated with a tropical cyclone.

5. Severe Local Storm Watch. An alert issued by the NWS for the contiguous U.S. and its adjacent waters of the potential for severe thunderstorms or tornadoes.

6. Small Craft Advisory (SCA). An advisory issued by Coastal Weather Forecast Offices (CWFO) for areas included in the Coastal Waters Forecast or Near Shore Marine Forecast products. Any vessel that may be adversely affected by SCA criteria shall be considered a small craft. SCA are issued when sustained winds or frequent gusts ranging between 25 and 33 knots (29-38 mph) (except 20 to 25 knots, lower threshold area dependent, to 33 knots (38 mph) for harbors, bays, etc.) and/or seas or waves five to seven ft. and greater are expected, area dependent.

7. Snow Advisory. This advisory is issued by the NWS when a low pressure system produces snow that may cause significant inconveniences, but does not meet warning criteria and, if caution is not exercised, could lead to life threatening situations.

8. Ice Storm Warning. This warning is issued by the NWS when freezing rain produces a significant and possibly damaging accumulation of ice. The criteria for this warning varies from state to state but typically will be issued any time more than 1/4 inch of ice is expected to accumulate in an area.

9. Winter Storm Warning. This warning is issued by the NWS when a winter storm is producing or is forecast to produce heavy snow or significant ice accumulations.

10. Winter Storm Watch. This watch is issued by the NWS when there is a potential for heavy snow or significant ice accumulations, usually at least 24 to 36 hours in advance.

11. Severe Thunderstorm Watch. This watch is issued by the NWS when conditions are favorable for the development of severe thunderstorms in and close to the watch area. A severe thunderstorm by definition is a thunderstorm that produces 3/4 in. hail or larger in diameter and/or winds equal or exceeding 50 knots (58 mph). During the watch, people shall review severe thunderstorm safety rules and be

prepared to move to a place of safety if threatening weather approaches.

12. Severe Thunderstorm Warning. This warning is issued when either a severe thunderstorm is indicated by the WSR-88D radar, or a spotter reports a thunderstorm producing hail 3/4 in. or larger in diameter and/or winds equal or exceeding 50 knots (58 mph); therefore, people in the affected area shall seek safe shelter immediately. Severe thunderstorms can produce tornadoes with little or no advance warning.

13. Tornado Watch. This is issued by the NWS when conditions are favorable for the development of tornadoes in and close to the watch area. Their size can vary depending on the weather situation. During the watch, people shall review tornado safety rules and be prepared to move to a place of safety if threatening weather approaches.

14. Tornado Warning. This is issued when a tornado is indicated by the WSR-88D radar or sighted by spotters; therefore, people in the affected area shall seek safe shelter immediately.

15. Conditions of Readiness

a. General. Conditions of Readiness (Weather Related) are set using the applicable term indicating wind force (e.g., thunderstorm Condition II) and/or a specified range of wind speeds (e.g., winds of 35 to 40 knots). Unless specifically stated otherwise, conditions of readiness are based on sustained winds. Additional weather-related conditions of readiness, warnings, or advisories (e.g., Destructive Weather /Thunderstorm/Severe Thunderstorm/Tornado Condition II) are also utilized to avoid or minimize loss of life, injury, and/or damage to property.

b. Non-Tropical Conditions of Readiness. The following conditions of readiness are established for non-tropical storm systems.

(1) Wind, Thunderstorm, Severe Thunderstorm, or Tornado Condition II. Condition II is set when conditions favorable for the development of severe winds, thunderstorms, severe thunderstorms or tornados exist in the Camp Lejeune area. Condition II generally corresponds to the NWS's Watch condition. Like the NWS's watch condition, Condition II is usually issued for duration of between four and eight hours.

(2) Wind, Thunderstorm, Severe Thunderstorm, or Tornado Condition I. Condition I is set when severe winds, thunderstorms, severe thunderstorms, or tornados exist in the Camp Lejeune area. Condition I generally corresponds to the NWS's Warning condition.

Like the NWS's Warning condition, Condition I is usually issued for a duration of one hour.

(3) Winter Storm Condition II. Condition II is set when an ice or snow storm is forecast for the Camp Lejeune area within 24 hours. Condition II generally corresponds to the NWS's warning and advisory conditions.

(4) Winter Storm Condition I. Condition I is set when an ice or snow storm is expected to affect the Camp Lejeune area within six hours and lasts until the storm passes and the road conditions are deemed to be safe enough to allow cautious travel. Condition I generally corresponds to the NWS's Warning condition.

c. The Decision to Set Conditions and Notification

(1) Wind, Thunderstorm, Severe Thunderstorm, or Tornado Conditions. The Regional Meteorological and Oceanographic Center will broadcast the existence of such conditions via its telephone notification system. RCD is responsible for passing these conditions and warnings to units training in the field.

(2) Winter Storm Conditions. The decision to set Winter Storm Conditions is made by the CG or his authorized representative. The MCIEAST-MCB CAMLEJ (G-3/5) will monitor forecasts, solicit staff input, and make recommendations to the CG MCIEAST-MCB CAMLEJ during the lead up to the storm to ensure decisions are based on the most up-to-date weather information and as complete an understanding of ongoing operations onboard the Installation as is possible. The MCIEAST-MCB CAMLEJ (G-3/5) will broadcast the setting of Winter Storm Conditions using Non-Secure Internet Protocol Router, Omni-directional telephone network (OMNI), and mass notification.

d. Non-Tropical Conditions of Readiness Tasks

(1) Wind, Thunderstorm, Severe Thunderstorm or Tornado Condition II Tasks

(a) Disseminate the setting of Wind, Thunderstorm, Severe Thunderstorm, or Tornado Condition II.

(b) Prepare to suspend training on towers and around ground mounted antennas.

(c) Secure loose equipment and debris in your area of responsibility, TAs, ranges, training facilities to reduce damage to persons and property caused by flying debris driven by high winds. Ensure storm drains and gutters are free of debris and function properly.

(d) Prepare to secure from field training and assume appropriate protective posture.

(2) Wind, Thunderstorm, Severe Thunderstorm, or Tornado Condition I Tasks

(a) Disseminate the setting of Wind, Thunderstorm, Severe Thunderstorm, or Tornado Condition I.

(b) Suspend training on any towers and around ground mounted antennas.

(c) Remain alert for downed power lines, trees, debris in roadways, flood areas, and other impediments that may obstruct traffic flow. Report any telephone and utility outages as they occur.

(d) Take immediate safety precautions and shelter.

(e) Secure from field training as directed from Range Control (BLACKBURN). All units must report to BLACKBURN once all personnel, military gear, and vehicles are removed from the field.

(3) Winter Storm Condition II Tasks

(a) Disseminate the setting of Winter Storm Condition II.

(b) The AC/S, SES monitors road conditions for emerging safety hazards and provides the CG, via the MCIEAST-MCB CAMLEJ (G-3/5), with an assessment of driving conditions.

(c) All commands and activities review military, civilian, and contractor personnel requirements and plan to reduce operations and personnel requirements to only those that are deemed essential.

(d) All commands and activities prepare to secure from field training.

(4) Winter Storm Condition I Tasks

(a) Disseminate the setting of Winter Storm Condition I.

(b) The AC/S, SES monitors road conditions and safety hazards and provides an appropriate "early closure /delayed opening/closure" recommendation to the MCIEAST-MCB CAMLEJ (G-3/5).

(c) All commands and activities secure from field training, as directed by Range Control (BLACKBURN).

(d) All commands and activities prepare to release all non-essential military and civilian personnel.

(e) All commands and activities minimize vehicular traffic.

(f) All personnel remain alert for downed power lines, trees, debris in roadways, flood areas, and other impediments that may obstruct traffic flow. Report phone and utility outages as they occur to the Public Works Senior Watch Officer, or 911 Emergency Services as the situation requires.

(g) All personnel prepare to take safety precautions and shelter.

16. Vehicle Restrictions Due to Wind and Ice/Snow. The AIWW Bridge to Onslow Beach will be secured to vehicle traffic when sustained wind speeds exceed 39 knots (45 mph). Additionally, vehicle movement is restricted as follows: Non-tactical vehicles are permitted prior to winds reaching 44 knots (51 mph); 45 to 87 knots (52-100 mph), tactical vehicles only; greater than 88 knots (101 mph), tactical vehicles only when responding to a life or death situation. Bridges and overpasses may be closed due to the accumulation of ice or snow that renders them unsafe in the judgment of the PMO.

17. Tropical Storm Conditions of Readiness. Due to the severe nature and duration of tropical cyclones (storms and/or hurricanes), Tropical Cyclone Conditions (TCCs) are set by the CG to prepare for an approaching storm. The proper execution of tasks at each TCC ensures that a progressive state of readiness is assumed by the Installation, its component's, and tenants. TCCs could impacts training and operations here at Camp Lejeune and unit could/would be directed to depart the field as directed by MCIEAST-MCB CAMLEJ (G-3/5) per reference (q).

a. Time-oriented tasks are based upon an on-going evaluation of the estimated time of arrival of the storm and are executed upon the setting of each TCC.

b. Event-oriented tasks are based on an on-going evaluation of operational requirements, personnel safety, and the progress of preparation operations and will be executed only upon specific direction by the MCIEAST-MCB CAMLEJ EOC.

c. Upon setting higher conditions of readiness, commands must accomplish specific actions to enable a coordinated effort to minimize the possible effects of destructive weather. When any increased condition of readiness is established, all actions for lesser conditions of readiness must be completed before those of the higher condition can begin.

d. The MCIEAST-MCB CAMLEJ (G-3/5) will disseminate tropical weather information, advisories and set TCCs to all Camp Lejeune area

commands, Installation staff, tenant units, and residents by posting the applicable information on the Automated Information System, (Menu 4 - Hurricane Information), telephone (910) 451-1717, and notifying appropriate commands/staff via the OMNI line and a "destructive weather e-mail distribution list." The setting of TCCs will be announced via the Defense Messaging System message via Automated Message Handling System (AMHS) to higher headquarters, all area commands, Installation staff, and tenant units. Additionally, destructive weather information will be announced via LCTV-10 and the MCIEAST-MCB CAMLEJ website.

e. Requests to be added or deleted from the OMNI line notification system or the "destructive weather e-mail distribution list" shall be submitted to the MCIEAST-MCB CAMLEJ (Current Operations Officer, Operations and Plans) at (910) 451-0375.

f. TCCs

(1) TCC V. The potential for the occurrence of destructive weather is elevated but no specific system threatens the area. TCC V indicates a seasonal destructive weather readiness level, i.e., Atlantic Hurricane Season (1 June to 30 November) is in progress.

(2) TCC IV, 72 Hours. A specific destructive weather system with sustained winds of 50 knots (58 mph) or greater is forecast to affect the area within 72 hours.

(3) TCC III, 48 Hours. A specific destructive weather system with sustained winds of 50 knots (58 mph) or greater is forecast to affect the area within 48 hours.

(4) TCC II, 24 Hours. A specific destructive weather system with sustained winds of 50 knots (58 mph) or greater is forecast to affect the area within 24 hours.

(5) TCC I, 12 Hours. A specific destructive weather system with sustained winds of 50 knots (58 mph) or greater is forecast to affect the area within 12 hours.

(6) TCC IC, Six Hours. A specific destructive weather system with sustained winds of 50 knots (58 mph) or greater is forecast to affect the area within six hours.

(7) TCC IE. The area is currently experiencing a specific destructive weather system with sustained winds of 50 knots (58 mph) or greater.

(8) TCC I, Recovery (TCC IR). The destructive weather system has passed the area, but safety and storm hazards remain. All orders,

restrictions, and guidance established in previous TCCs remain in effect.

18. Wet Bulb Globe Temperature Index

a. Wet Bulb Globe Temperature Index (WBGTI) information can be found on the Automated Heat Sensor System (AHSS) web page (<http://ahss.lejeune.usmc.mil/Default.aspx>), the Camp Lejeune website (<http://www.lejeune.marines.mil>), and the Marine Corps Base Automated Information System at (910) 451-1717. WBGTI readings may also be obtained from BLACKBURN between the hours of 0800-1900 daily.

b. WBGTI Index Readings

(1) Green Flag. When the WBGTI reads from 80 to 84.9°F, heavy exercises for personnel not acclimated shall be conducted with caution and under constant supervision.

(2) Yellow Flag. When the WBGTI reads from 85 to 87.9°F, strenuous exercises, such as marching at standard cadence, shall be suspended for troops who are not acclimated in their first two or three weeks. Outdoor classes in direct sun shall be avoided.

(3) Red Flag. When the WBGTI reads from 88 to 89.9°F, all physical training (PT) shall be halted for those troops who have not become thoroughly acclimated by at least 12 weeks of living and working in the area. Those Marines who are thoroughly acclimated may carry on limited activity not to exceed six hours per day. BLACKBURN will notify all training units with established communications when the WBGTI reaches red or black flag conditions.

(4) Black Flag. When the WBGTI exceeds 90°F, all. All nonessential physical activity will be halted for all units.

(5) Administrative Black Flag. A condition created when the Medical Facility cannot handle any more patients or all emergencies vehicles are off station. All training is suspended and will not resume until authorized by the RCO. The WBGTI readings are relayed hourly via radio to training units by BLACKBURN when the reading exceeds 90°F.

19. Airspace Management During Emergency Response Requiring Civilian/Military Aircraft Evacuation. Regardless of the situation, emergency response aircraft (Military or Civilian) entering the restricted airspace shall contact BLACKBURN. BLACKBURN shall route emergency response aircraft in the most expeditious manner as possible to the location requested by the "On-Scene Commander". At all times, the emergency response aircraft shall maintain communications with BLACKBURN and shall adhere to all aircraft safety requirements as set-forth in this Order. BLACKBURN will inform all other aircraft

operating in the area about the routing and destination of the MEDEVAC/CASEVAC aircraft. If there is an "on scene commander" aircraft, he/she will communicate with the MEDEVAC/CASEVAC aircraft (on BLACKBURN's frequencies 233.8 UHP, 119.5 VHF, or 34.70 FM) and maintain separation.

20. Observation of, or Participation in Training by Military Dependents and Civilians

a. Civilians are not authorized to be on any RTA, waterway, or training facility unless explicitly approved by the unit's chain of command and Range Control by formal letter that is properly endorsed by the unit's chain of command for this type of special event. Requests for military dependents or civilians to participate in, or observe military training like a "John/Jane Wayne Day" or "A Day in Their Boots" on a RTA or training facility aboard Camp Lejeune shall be submitted as a SRR from the command (This can be signed as "By direction") and endorsed via the chain of command to the CG MCIEAST-MCB CAMLEJ (G-3/5) at least 30 working days in advance of the event. The 30 working day requirement provides sufficient time to request and receive authorization from Headquarters, U.S. Marine Corps for dependents or civilians to take part in training evolutions if required. References (a) and (r) apply as the primary references.

b. Approved civilians (Non-Government Employees) such as approved contract support personnel, Role Players, approved civilian instructors, and additional civilian support personal would be approved if pre-arranged and authorized by the Range Control Officer by E-mail Special Range Request (ESRR). If a using unit would like a guest, family member, or others to just observer training from a safe distance it can be approved via ESRR to Range Control.

(1) Requests require the following information in the formal request via the unit's chain of command:

- (a) Unit conducting event;
- (b) Organization/background of civilian participants;
- (c) Event description, including weapon system(s) and ammunition being fired or observed or other scheduled planned events by the civilians;
- (d) Date and time the event will take place;
- (e) Location of the event (live-fire range, GP, etc.); and
- (f) Purpose of the event, reason the civilian visitors/guest are participating (i.e. John/Jane Wayne Day, A Day in Their Boots).

(g) ORM Worksheets. It must be reviewed and signed by the person who prepared it and signed by the person one level above who reviewed the ORM for this event.

(2) Waiver of Liability. Civilian/Contractor participants must sign a Waiver of Liability before the event. A copy of the signed waiver of liability must be onsite while training is being conducted and kept on file for a minimum of three years by the command/unit. A sample of a Waiver of Liability can be found in Appendix H and on the Range Control website. Additionally, if required, all Waiver of Liability forms may be reviewed by the Office of the Staff Judge Advocate to ensure that the Installation is in compliance with all legal requirements.

c. Training authorized for observation/participation is limited and restricted. Civilians are not authorized to fire any crew served weapons (i.e., M240B, MK-19, and M2 .50 cal. machineguns, rockets /missiles, mortars, artillery howitzers, Fire and Movement type events) or any dud-producing weapons or ammunition. Family members under the age of 18 years old on the date of the event are precluded from participating in any live-fire, Obstacle Course, Combat Fitness Test, Marine Corp Martial Art Program, wall climbing, fast roping, rappelling events or other high-risk events as directed. When incorporating civilians into training, commanders must establish all safety control measures to ensure civilian activities are conducted safely at all times.

d. Special Events (i.e., Capabilities Exercise [CAPEX]) and other assigned events as directed by the CG MCIEAST-MCB CAMLEJ for observation by dependents/civilians will be coordinated by special bulletin/message from the MCIEAST-MCB CAMLEJ (G-3/5).

## 21. Quiet Hours

a. Quiet hours will be in effect from 0001-0600 Monday through Saturday and also from 0001-1200 on all Sundays. Quiet hours restrict the firing of all artillery, naval gunfire, mortars, explosives /demolitions, grenade launchers, rockets, missiles, and any other large caliber weapon systems, or training devices that create loud noises like the Artillery Simulators and all others.

b. In addition, SR-7 is not authorized to go "HOT" from 0001-1200 on Sundays and must go "COLD" at 2359 each night with all weapon systems to include all small arms.

c. SR-10 is not authorized to go "HOT" from 0001-1200 on Sundays with the tank 120mm main gun and Training Practice TOW Missiles but is authorized for firing small arms. All demolition/explosive training will cease one hour prior to sunset unless approved by Range Control via an official SRR.

d. Requests to fire restricted weapon systems, demolition/explosives during quiet hours as listed above must be endorsed by the unit's chain of command and forwarded to the CG MCIEAST-MCB CAMLEJ (G-3/5) via the Director, RCD for approval at least 30 working days in advance.

e. Requests for other specific quiet hours for change of command ceremonies, retirements, memorial service, etc., are requested by the commander of the unit, endorsed by the unit's chain of command, and forwarded to the CG MCIEAST-MCB CAMLEJ (G-3/5). MCIEAST-MCB CAMLEJ (G-3/5) will release a naval message stating the Quiet Hours to be observed and ranges/GPs to be impacted that will be placed into "CHECK-FIRE" for the time period of the special event.

f. For additional guidance on Quiet Hours contact the MCIEAST-MCB CAMLEJ (G-3/5) Operations Department.

## 22. Privately-Owned Vehicles, Weapons, and Alcohol

### a. POVs

(1) Privately-owned recreational vehicles, such as three and four-wheeled, all-terrain vehicles, dirt or trail bikes, mountain bikes, dune buggies, go-carts, and any regular four-wheeled vehicles are not authorized within any RTA or other training facilities.

(2) Range Control will issue/sign out POV passes to the owners of a POV only on a case-by-case basis to support day-to-day activities on a limited time period issue for SNCOs and above. E-5 and below must be escorted by a SNCO or above to sign out a Range Control POV pass. Civilian contractors must be escorted by the hosting unit to sign out a Range Control POV Pass unless prearranged with Range Control via e-mail/phone.

(3) Limited designated POV parking areas will be cleared and maintained at some ranges. By special arrangement with Range Control, temporary POV permits for other designated parking areas can be obtained if signed for at Range Control. POVs cannot park within 50 meters of the firing line or on any range, MP, GP where dud-producing ammunition is fired/stored. POVs are not authorized at Onslow Beach (EB Training Area), Combat Town, LZ Hawk, LZ Falcon, and Hawk FOB. Units that have rental vehicles must have a signed out Range Control POV Pass displayed.

(4) Special events (i.e., CAPEX, Certification Exercise) POV use/parking instructions are published by special bulletin.

(5) SOI-E and MCES have, by special agreement with the CG MCIEAST-MCB CAMLEJ, the authority to park POVs in certain designated areas within the Verona Loop area and all other approved areas. All

POVs parked in these areas must display the SOI-E Parking Permit or MCES Parking Permit. No other units are authorized POV parking in these areas unless issued a Range Control POV pass.

(6) Units that require the inclusion of POVs in their training to add realism, etc., shall contact Range Control for special approval prior to the training event. Range Control POV Passes must be issued and a POV Waiver of Liability and Assumption of Risk is filled out and signed by the vehicle operator/owner.

b. Privately-Owned Weapons

(1) Privately-owned weapons are not authorized on any live-fire range except for designated/approved recreational firing events. Privately owned weapons are not authorized in any TAs unless associated with a scheduled hunting event within that approved TA.

(2) Firing of Privately-Owned Weapons

(a) The firing of privately-owned weapons and ammunition is considered recreational firing and will be treated like any other live fire event. Recreational firing on any military range requires approval from the RCO. Recreational firing on any military range aboard Camp Lejeune requires a formal request via the unit's chain of command to the CG MCIEAST-MCB CAMLEJ (G-3/5) RCD, 30 days in advance of the scheduled special event to be properly endorsed and approved by the RCO or a formal/approved Memorandum of Agreement (MOA) by all parties. The requesting unit must schedule the event in RFMSS, provide a ROIC/RSO/Corpsman/Safety Vehicle with Driver and the event must be signed for by the ROIC.

(b) The following requirements apply for the use of recreational fired (Non-Hunting) privately-owned weapons:

1. The owner of privately-owned weapon (Handguns (Pistols), Rifles, Shotguns, and Muzzle Loaders) will complete/conduct an inspection of that weapon/ammunition to ensure it is functional and safe to operate/fire.

2. An Indemnification Agreement and Waiver Liability (Appendix H) will be signed by the individual(s) requesting recreational firing.

3. The caliber of the weapon and the type of ammunition will not exceed specified range restrictions for that range. The shooter will provide their own serviceable ammunition which must be declared safe and authorized for that scheduled range by the RCO/Unit ROIC.

4. The firing of such weapons will not interfere with scheduled military training. Military training will take priority over any recreational firing.

5. Military training and recreational firing will not take place on the same range at the same time.

c. Drugs and Alcohol. Drugs and alcohol to include mind altering prescription or non-prescription drugs of any kind is not authorized on any RTA or training facility. Consumption of alcohol during special military functions like Field Mess and Warrior Nights will require a SRR to the CG MCIEAST-MCB CAMLEJ (G-3/5) at least 30 working days in advance of the event. A separate request for underage drinking at these events will be submitted to MCIEAST MCB CAMLEJ G-1 Adjutant via the unit's chain of command with a list attached of all Marines/Sailors that are underage. A copy of this underage drinking package/document must be provided to Range Control at least one day prior to the event. Amplifying information and guidance is available in reference (b) on consumption of alcohol.

23. Addresses/Phone Numbers/Websites. The following list provides the various means of contacting Range Control.

- a. Mailing address:  
Commanding General  
Attn: Range Control Division (RCD) Building 54  
MCIEAST-MCB CAMLEJ G-3/5  
PSC Box 20005  
Camp Lejeune, NC 28542-0005
- b. Plain language message address:  
CG MCIEAST-MCB CAMLEJ G3-5
- c. E-Mail addresses:
  - (1) BLACKBURN: [blackburnduty@usmc.mil](mailto:blackburnduty@usmc.mil)
  - (2) Range Scheduling: [lejeunerangescheduling@usmc.mil](mailto:lejeunerangescheduling@usmc.mil)
- d. Websites:

(1) MCIEAST-MCB Share Point Website, Range Control Operations. To access the Range Control MCIEAST-MCB Website, navigate to the Marine Corps Base, Camp Lejeune official website <http://www.lejeune.marines.mil/>, select Units, Offices and Staff, and Range Control at: <https://intranet.mcieast.usmc.mil/sites/G3/Range%20Management/Range%20Control%20Division/Pages/default.aspx> when asked for certificate, use the e-mail certificate. Marine Corps Enterprise IT Services (MCEITS) Camp Lejeune Range Control Website at:

<https://eis.usmc.mil/sites/mcbrcd/default.aspx> when asked for certificate, use the e-mail certificate.

Complex address: (Both Lines).

<https://intranet.mcieast.usmc.mil/sites/G3/Range%20Management/Range%20Control%20Division/Pages/default.aspx>

(2) AHSS Website: <https://ahss.lejeune.usmc.mil>

(3) Weather Buoys: <http://www.ndbc.noaa.gov>

e. Phone numbers (Commercial Area Code 910/DSN prefix 751).  
Table 1-1 contains various POCs at Camp Lejeune.

POC	PHONE NUMBER
Director, RCD	451-3932
Secretary, RCD	451-3733
Facsimile (FAX), RCD	451-1593
Range Control Officer (RCO)	451-1235
Range Control Operations Officer (RCOO)	451-1236
Range Safety Specialist (RSS)	451-1240
Range Control Operations Chief (RCOC)	451-5803
Range Control IT Specialist	450-7966
Scheduling	451-3065/3066/4478
FAX, Scheduling	451-1544
BLACKBURN/Fire Desk	451-3064/4449
CS Chamber (Mainside)	451-3518
Navy Boat Crew	451-5046
Base EOD	449-0558/0334
MOUT Staff	451-2364/0752/0508 /0753
Training Tank, Area 5	451-2027
Training Tank, Courthouse Bay	440-6005
GSRA, SR-46 (Range Control West)	449-6228/6205/6341
FAX, GSRA	449-6227
WTBn S-3 Stone Bay	450-2918
HSTL Complex, GSRA, SR-12	449-2147
Ground Training Simulators	450-5126

Table 1-1--Camp Lejeune POCs

**Note: Phone numbers are subject to change. For additional information contact Range Control**

24. Applicable Map Sheet

a. All grid coordinates listed in this Order (except MCOLF Oak Grove which is a separate map sheet) are referenced to apply to the Camp Lejeune Military Installation Map, WGS 84/NAD 83 Edition 4-NGA, Series V742S; sheet Camp Lejeune MIM, NSN 7643014255064. NGA Reference Number V742SCPLEJEUMIM.

b. Recommendations/changes to the Camp Lejeune Military Installation Map will be made to the Director, RCD, and Director, RDMD.

c. Geographical Data. The GIS is a very important asset available to trainers at all levels. Maps of all types and scales are available through the IGIR. Everyone planning to train aboard Camp Lejeune shall access the IGIR website at: <https://www.geofieast.usmc.mil/pages/default.asp>. The layers of data available in map format are extensive and include aerial photography. GIS products are "For Official Use Only" and are limited to official use only. For printed products such as maps, aerial photos etc., contact the GIS office, phone number (910) 451-9016, or the RSS at (910) 451-1240.

Chapter 2

Environmental Procedures

1. Purpose. The protection and enhancement of our natural environment is a valuable tool in sustaining the training and support mission of MCIEAST-MCB CAMLEJ. The purpose of this Chapter is to inform trainers/commanders about their responsibility to protect the natural environment, stressing the important role each individual plays in ensuring no net loss in the capability of military installation lands to support unit training requirements, by following the procedures in this Order. Ever increasing demands on training areas, and ranges that support the readiness of military forces, require a strong commitment by all hands to protect and conserve natural and cultural resources found on the installation. Compliance with Federal and state laws, regulations, and USMC policies related to integrated natural and cultural resource management with the military mission will sustain unit readiness as well as maintain healthy, natural, ecosystems. The information in this Chapter incorporates sound environmental practices, and establishes procedures to ensure continued, proactive compliance with programs established for the management and protection of natural and cultural resources on military installations. Following these environmental management procedures will prevent pollution, divert and minimize waste, promote recycling, and protect and enhance our natural resources.

2. General. It is the responsibility of each individual/unit and command to preserve our natural resources. As professional Marines, Sailors, tenant commands, and good citizens we should strive to provide realistic training while protecting MCIEAST-MCB CAMLEJ's natural environment for future generations. The following guidelines support the best utilization of MCIEAST-MCB CAMLEJ RTAs and also protect the environment. Regulations concerning environmental restrictions are mandated by Federal law and are applicable to all federal agencies including military reservations. Additional guidance on how to train and preserve the environment can be found in the latest version of the "The Environmental Handbook for Trainers and the Quick Look Environmental Guide." These handbooks/guides are excellent sources of additional information and are issued by RCD and the EMD.

3. Laws, Policies, and Plans

a. In an effort to preserve the environment, it is required that all users comply with all Federal environmental statutes, regulations, executive orders, and military mandates, as well as consistently execute all relevant plans. Some of the most pertinent of these are listed below.

- (1) The National Environmental Policy Act of 1969;
- (2) The Clean Air Act;

- (3) The Clean Water Act;
  - (4) Coastal Zone Management Act;
  - (5) The Resource Conservation and Recovery Act;
  - (6) The Comprehensive Environmental Response, Compensation and Liability Act of 1980;
  - (7) The Endangered Species Act;
  - (8) The National Historic Preservation Act;
  - (9) The Archeological Resources Protection Act;
  - (10) Antiquities Act of 1906;
  - (11) The Federal Facilities Compliance Act;
  - (12) The Migratory Bird Treaty Act;
  - (13) Integrated Natural Resources Management Plan (required by the Federal Sikes Act and reference (s)).
  - (14) Marine Mammal Protection Act;
  - (15) Bald Eagle and Golden Eagle Protection Act;
  - (16) Native American Graves, Protection, and Repatriation Act;
- and
- (17) Sikes Act Improvement Act.
  - (18) Cultural and Historic Resources. Federal and state historic preservation laws have been developed to protect our cultural heritage and these laws are enforced on the RTAs.

b. Any violation of the environmental laws listed above can incur civil and criminal fines and/or incarceration.

#### 4. Environmental Impact Review

a. Some training exercises on the ranges and TAs of MCIEAST-MCB CAMLEJ, will require the preparation of a document called a **Field Exercise Request for Environmental Impact Review (FEREIR)**. A blank version of the FEREIR is available online at: [http://www.lejeune.marines.mil/Portals/27/Documents/EMD/FEREIR\\_Feb13.pdf](http://www.lejeune.marines.mil/Portals/27/Documents/EMD/FEREIR_Feb13.pdf) Read and follow the instructions on the first page. Examples of training exercises requiring a FEREIR include, but are not limited to, establishment of a tactical fuel farm, FARP, TWPS site, cutting vegetation, digging, or non-routine activities at Onslow

Beach. Submit the completed FEREIR form to [Lejeune\\_REIR@usmc.mil](mailto:Lejeune_REIR@usmc.mil) at least two weeks prior to the planned field exercise. Any units that cannot access the website to download the form can e-mail [Lejeune\\_REIR@usmc.mil](mailto:Lejeune_REIR@usmc.mil) and request a FEREIR form via e-mail.

b. The EMD will contact the responsible Officer-in-Charge/Unit Representative if any topics require clarification or additional information. A field visit/site survey by the EMD may be necessary. After the FEREIR form has been reviewed and processed by EMD staff, signatures of the representative from the EMD and the responsible unit representative will be required. The responsible unit representative must implement and comply with all remarks/stipulations developed by EMD for the specific exercise. These stipulations will be explained on the FEREIR form.

c. Exercises in garrison areas such as the cantonment areas (e.g. setting up tents, antennas, generators, lights, digging or ground disturbing activities, etc., in the unit's motor pool, in an open area between buildings or on grass/parking areas in garrison) require the submittal of a FEREIR if any answers on the FEREIR form are "Yes".

d. Any feedback on the "ease-of-use" or any suggestions regarding ways to improve the FEREIR form shall be sent to [Lejeune\\_REIR@usmc.mil](mailto:Lejeune_REIR@usmc.mil).

e. Whenever there is any potential for significant environmental impact, exercise planners shall contact Range Control at (910) 451-1240/1236 for guidance, direction, and will be directed to other agencies as required to ensure all requirements are accomplished.

## 5. Protected Species

a. MCIEAST-MCB CAMLEJ is known to be home to eight Federally-listed threatened, or endangered species:

- (1) Red-Cockaded Woodpecker (RCW);
- (2) Green Sea Turtle;
- (3) Loggerhead Sea Turtle;
- (4) Red Knot (Shorebird);
- (5) Rough-Leaf Loosestrife;
- (6) Seabeach Amaranth;
- (7) Piping Plover; and
- (8) American Alligator.

b. The waters off of Camp Lejeune provide seasonal habitat for several Federally-listed species, including two species of sturgeon, leatherback sea turtles, and marine mammals, such as the West Indian manatee, and the right whale. Guidelines for boating and training use of the N-1/BT-3 impact area, E-1, G-5, G-7, and H-Range are given in the following sections.

c. Although the American Alligator has recovered, it is still listed as threatened due to similarity of appearance to the American Crocodile. Camp Lejeune also has a Federal candidate species, Hirst's Panic Grass. The Bald Eagle is no longer listed as threatened or endangered by the Federal government, but is protected under the Bald Eagle and Golden Eagle Protection Act, and the Migratory Bird Treaty Act. Finally, this document addresses other species of concern which, although not Federally-listed, are protected.

d. Unit Commanders, Officers-in-Charge (OICs), Unit SNCOs/NCOs ROICs/RSOs will ensure strict compliance with applicable regulations regarding these protected species, as listed in reference (t) and this Order.

e. Site-specific information can be obtained from the MCB CAMLEJ Environmental Conservation (ECON) Branch, EMD, personnel at (910) 451-5063.

## 6. Endangered Animals

a. RCW. The RCW is an endangered species protected by Federal law. RCWs are cavity-nesting birds and depend on live pine trees for their survival.

b. The CG MCIEAST-MCB CAMLEJ has implemented a program to protect RCW habitat. Some RCW nesting areas (i.e. cavity tree clusters) are marked with buffers within which certain training activities are restricted. Buffer Zones extending **200 feet**. out from each cluster of cavity trees and are marked with single bands of white paint on the trees at chest height and signs reading:

**Endangered Species Site**  
**Restricted Activity**  
**Red-Cockaded Woodpecker**  
**or**  
**Endangered Species Colony Buffer Zone**  
**or**  
**Restricted Area Endangered Species Site**

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(1) Further, the all RCW cavity trees are marked with blue-white-blue painted bands. Units must be fully aware of this distinction; **some activities are allowed within the buffer zones but cannot be conducted within 50 feet. of the cavity tree. Table 2-1 can be used as a reference.**

(2) The below actions are prohibited under Public Law 93-205, Endangered Species Act of 1973, and MCIEAST-MCB CAMLEJ/Base Orders concerning the RCW and marked buffer zones. Violators and their chain of command can be prosecuted under Federal law for willful noncompliance.

(a) The cutting or damaging of Pine Trees of any size within the buffer zones and TAs. Damage to RCW cavity trees, including: attaching wires, trip flares, or other devices.

(b) Any digging within 50 ft. of the cavity tree.

(c) The firing of artillery/mortars within RCW buffer zone.

(d) Bivouacking, the establishment of command posts or any defensive fighting positions occupied for longer than two hours within the RCW buffer zone.

(e) "Tree topping" antennas, girdling pine trees with communications wire, burying cable or climbing pine trees with tree gaffs within the RCW buffer zone.

(f) Use of generators or portable lighting systems within the RCW buffer zone.

(g) CS, Riot Control Agents (RCA), smoke pots, or High-Capacity (HC) smoke will not be used or set up within the buffer zone. The smoke may drift through the RCW buffer zone.

(h) Heavy digging (mechanical), or establishing vehicle fighting positions, tank ditches, trench lines, fighting holes, or deliberate defensive positions.

(i) Establishing camouflage netting within RCW buffer area.

(j) The removal or destruction of RCW signs marking a restricted area.

(k) Any act which results in the shooting, wounding, killing, capturing, or collecting of any RCW, the destruction of its eggs, the destruction of its nesting sites, or the attempt to engage

in such conduct is prohibited. Any such event shall be reported to Range Control and the EMD.

<b>TRAINING ACTIVITY WITHIN MARKED BUFFER ZONES</b>	<b>YES/NO</b>
<b>MANEUVER/BIVOUAC</b>	
Hasty Defense, Hand Digging, Only two Hours Max, 18 inches or less	Yes
Hasty Defense, Mechanized Infantry/Armor 24 Hours	No
Deliberate Defense, Light Infantry 48 Hours	No
Deliberate Defense, Mechanized Infantry/Armor	No
Establish Command Post, Light Infantry 36 Hours	No
Establish Command Post, Mechanized Infantry/Armor 36 Hours	No
Assembly Area Operations, Light Infantry/Mech Infantry/Armor	No
Establish CS/CSS Sites	No
Establish Signal Sites	No
Foot Transit Through The Colony	Yes
Wheeled Vehicle Transit Through The Colony	Yes
Tracked and Light Armoured Type Wheeled Vehicles Transit Through The Colony	No
Cutting Natural Camouflage, Hardwood Only	Yes
Establish Camouflage Netting	No
Vehicle Maintenance For No More Than two Hours	Yes
<b>WEAPONS FIRING</b>	
7.62 And Below Blank Firing	Yes
.50 Cal Blank Firing	No
Artillery/Mortar Firing Point/Position	No
MLRS/HIMARS Rocket Firing Position	No
All Others	No
<b>NOISE</b>	
Generators/Flood Lights/Portable Lights	No
Artillery/Hand Grenade Simulators	Yes
Hoffman Type Devices	Yes
<b>PYROTECHNICS/SMOKE</b>	
CS/Riot Agents	No
Smoke, Haze Operations Only, Generators Or Pots	Yes
Smoke Grenades	Yes
Incendiary Devices To Include Trip Flares	No
Star Clusters/Parachute Flares	Yes
HC Smoke Of Any Type	No
<b>DIGGING</b>	
Tank Ditches	No

Hasty Individual Fighting Positions, Hand Digging Only, Filled After Use (18 in. or less)	Yes
Deliberate Individual Fighting Positions	No
Crew-Served Weapons Fighting Positions	No
Vehicle Fighting Positions	No
Other Survivability/Force Protection Positions	No

Table 2-1--Training Activity Within Marked RCW Buffer Zones

(3) The following actions are authorized in RCW buffer zones:

(a) Foot transit or patrolling through the RCW colony /cluster.

(b) Vehicular transit through the colony (**no closer than 50 feet. to any cavity tree**) when off-road traffic is authorized in advance by the RCO.

(c) 7.62mm and below blank firing and use of flash bangs, pyrotechnics, signaling smoke, artillery simulators, and Hoffman device.

(d) Cutting hardwood foliage (arm diameter or smaller) is permissible for camouflage and concealment.

(e) Hand-digging of individual fighting positions in support of a hasty defense (no closer than 50 ft. to cavity tree; position not to be occupied longer than two hours; must be filled in upon completion).

c. Sea Turtles. Utilization of Onslow Beach along the Atlantic Ocean from the sand dunes seaward is subject to the following during the sea turtle nesting season, which runs from 1 May through 31 October:

(1) Amphibious landing/training is authorized from grid point 908-268 southwest to grid point 883-251. Additionally, tracked vehicles are authorized in a 65-meter wide ingress/egress corridor (splash point trail) at 878-248. All other areas of Onslow Beach are subject to restrictions during the nesting season of 1 May through 31 October. To access the splash point trail from the training area or vice versa, vehicles must stay below the high tide line.

(2) During the nesting season, night landing exercises shall be reduced to the minimum level.

(3) During the nesting season, night lighting on the beaches shall be kept to a minimum or eliminated, if possible.

(4) Vehicular traffic on the beaches is restricted to the tidal zone except within the identified operating area.

(5) EMD must be notified immediately at (910) 451-5063 upon discovery of any sea turtle nest that has not been marked/protected to ensure its successful relocation.

(6) It is unlawful to take, transport, or possess any protected sea turtle or the parts, eggs, nests, or nest site to include protective cages and signs.

(7) Any unique or unusual exercises occurring on Onslow Beach will be coordinated through Range Control and the EMD.

(8) Digging, excavating, or building tank traps on the beach is prohibited.

(9) During sea turtle nesting season, all Beachmaster Camps set up on association with amphibious landings shall be located off the beach. Lighting shall be the minimal necessary to comply with safety requirements and training needs.

(10) If equipment is to remain on the beach overnight in the North Tower area, or north of the amphibious landing beach during the nesting season, no element placed parallel to the surf will exceed eight feet in length and sandbags will surround the object to prevent entanglement of nesting female turtles.

(11) Any bunkers excavated for aerial bombing simulators will be covered with plywood and sandbags if left overnight during sea turtle nesting season.

(12) Egress from the beach to the road behind the sand dunes shall be at designated egress routes. Vehicular traffic is prohibited on the sand dunes at all times.

(13) Tampering with sea turtle nests and protective cages is prohibited. A wire cage surrounds all known nests with signs posted reading:

**LOGGERHEAD TURTLE NEST  
DO NOT DISTURB  
or  
ENDANGERED SPECIES NEST  
DO NOT DISTURB**

d. American Alligator. The American alligator is considered recovered, but is still listed as threatened due to similarity of appearance to the American crocodile. Camp Lejeune wetlands provide a suitable habitat for alligators in both fresh and salt-water estuarine

areas. Precautions shall be taken between the months of **May and June** when the female alligator usually lays 20-60 eggs in a nest consisting of mounds of vegetation. Areas known to contain alligators are marked with signs reading:

**DANGER  
THREATENED SPECIES HABITAT  
AMERICAN ALLIGATOR  
STATE PROTECTED  
DO NOT DISTURB OR FEED ALLIGATORS  
SWIMMING BY PERSONNEL OR PETS STRICTLY PROHIBITED**

e. Manatees. Manatees have occasionally been sighted in the waters adjacent to MCIEAST-MCB CAMLEJ, including Mile Hammock Bay, the New River, and the AIWW. Manatees can grow to 15 feet. in length and are uniformly gray or gray-brown in color. They are very slow moving mammals; boat collisions are a significant source of manatee mortality, both from impact and propeller damage. Everyone conducting waterborne operations shall be alert for possible manatee encounters. If a manatee is sighted, immediately slow to a no-wake speed. Allow sufficient room for the manatee and maneuver cautiously away from the encounter area. Do not approach the manatee. Report all sightings to the EMD at (910) 451-5063.

f. Piping Plover. Onslow Beach provides potential nesting habitat for the threatened piping plover and several other migratory shorebirds and colonial water birds. At least five bird species nest along the sparsely vegetated beach area and between the accreting and eroding sand dunes. From April-August, portions of the New River Inlet beach (TA EA) are closed to vehicle traffic with signs reading:

**COLONIAL WATERBIRD AND  
SHORE BIRD  
NESTING AREA  
VEHICLES PROHIBITED**

g. Bald Eagle

(1) The bald eagle is no longer listed by the U.S. Fish and Wildlife Service as threatened or endangered. There are currently five active bald eagle nests and two alternate nests on Camp Lejeune. The nests are located at the following grid points:

- (a) Sneads Creek Nest - 803-297
- (b) Traps Bay Nest - 857-273
- (c) Traps Bay Alternate - 856-274
- (d) Traps Bay Alternate - 857-274

- (e) LZ Eagle Nest - 783-414
- (f) G-10 (MP-6) Nest - 952-354
- (g) Freeman Creek Nest - 925-313

(2) In accordance with Camp Lejeune's permit under the Bald Eagle and Golden Eagle Protection Act, no training activities, either on foot and/or in wheeled and tracked vehicles may occur within 100 feet of any active bald eagle nest during the nesting season (1 October 1 to 15 May or until the eaglet(s) fledge, which may be before or after 15 May). This restriction does not apply to established roads that are currently being used. Any blank ammunition and/or artillery fire must be directed away from any bald eagle nest. Aircraft using the LHD Deck will only ingress/egress from the north, south or west of Highway 172. Additional Bald Eagle nests may exist but are, as of yet, undocumented. Bald Eagle sighting occurring from January - June shall be reported to EMD personnel at (910) 451-5063.

h. Eastern Diamondback Rattlesnake and other Snakes. Eastern Diamondback Rattlesnakes are a state-listed endangered species and are protected by North Carolina law. The only known population of diamondbacks in the entire state occurs on Camp Lejeune. Do not harass or kill any snakes, unless it is in a striking position and you cannot safely back away. Note that the vast majority of snakes seen on Camp Lejeune are non-venomous.

i. Marine Mammals. The waters surrounding Camp Lejeune are inhabited by marine mammals, including dolphins, whales, and manatees. All marine mammals are protected under the Marine Mammal Protection Act. Those marine mammals that are listed under the Endangered Species Act, such as the North Atlantic Right Whale, receive additional protection. When using water ranges, per paragraph 6g(1)(i)(1) below, the following precautions listed in paragraph 6g(1)(i)(2) shall be taken to avoid harm to marine mammals.

(1) The N-1/BT-3 Impact Area, Range E-1, and Range H-1 Small Arms up to .50 cal. and 40mm Inert Practice rounds from H-1, G-5, G-7, and direct fire 155mm Artillery from G-7.

(2) Preventative measures specific to the avoidance of harm to marine mammals are as follows:

(a) All RTAs must be scheduled and approved in RFMSS prior to use. Ranges that are close to the AIWW or use the N-1/BT-3 Impact Area and training or operations in the Atlantic Ocean Sector, to include Onslow Bay, must be scheduled at least 45 days prior to use to allow publication of a NOTMAR and coordination with external agencies, per the Code of Federal Regulations. Ranges requiring aerial range sweeps (G-5, G-7, H-1, E-1, and N-1/BT-3 Impact Area) require

scheduling in RFMSS at least 65 days prior for Range Control to submit a range sweep request prior to the 2d Marine Aircraft Wing (MAW) Fragmentary (FRAG) conference. Submission of requests for range sweeps may or may not be approved by 2d MAW due to availability of aircraft. Units are ultimately responsible to ensure a range sweep aircraft is scheduled for the ranges requiring the aerial range sweeps.

(b) Prior to commencing live-fire exercises in the N-1/BT-3 Impact Area, an air sweep must be conducted to identify marine mammals and sea turtles (in addition to civilian boats) in the impact area.

1. Flyovers (range sweeps) will be flown at 750 ft.AGL and consist of at least two survey lines 2nm apart and parallel to the coast, with the first line 1-2 miles off the beach, and the second 3-4 miles off the beach.

2. If a marine mammal or sea turtle is spotted in the N-1/BT-3 Impact Area, firing cannot commence until the marine mammal clears the impact area.

(3) Lookouts with binoculars will be placed in the Bear and North Onslow Towers for safety purposes. These lookouts are detailed in the range instruction folders to maintain a marine mammal watch and will "CHECK-FIRE" the range should any marine mammal be detected in the impact area. Lookouts will be given a guidebook, developed by the Camp Lejeune EMD to recognize when a marine mammal or sea turtle has surfaced, and identify the species, if possible. In addition, lookouts will be encouraged to take the Navy's online Marine Species Awareness Training Course.

(a) If a whale or other marine mammal is spotted within the SDZ of the weapons being fired, all live-fire operations shall be halted. Live-fire will not resume until the marine mammal or sea turtle clears the impact area.

(b) The Navy Boat Crew will be present in the AIWW during active live-fire training and will maintain a watch for marine mammals and sea turtles in the AIWW. The Navy Boat Crew will "CHECK-FIRE" if a marine mammal or sea turtle is seen in the line-of-fire. Firing will not resume until the animal has cleared the line-of-fire. Although firing from boats in the AIWW will be directed towards land targets, those targets will not be fired upon if a marine mammal or sea turtle is between the boat and the target.

(c) Lookouts will visually survey for marine mammals and sea turtles. Weapons will not be fired in the direction of known or observed, marine mammals, or sea turtles.

(d) N-1/BT-3 Impact Area, G-5, G-7, and H-1, are the only ranges allowed to shoot training practice projectiles that impact within 200 meters of the AIWW.

(e) Unit COs, OICs, officers, SNCOs, NCOs, ROICs, and RSOs will ensure strict compliance with applicable regulations regarding protected species (including the West Indian Manatee and North Atlantic Right Whale), as listed in reference (t).

(f) To further protect North Atlantic Right Whales, Range Control issues a daily warning order to trainers from November 1 through April 30 when North Atlantic Right Whales are present along the North Carolina coast. The warning order states:

**ENDANGERED NORTH ATLANTIC RIGHT WHALES MIGRATE ALONG THE NORTH CAROLINA COAST ENROUTE TO AND FROM NEW ENGLAND AREAS. USED PRIMARILY SPRING THROUGH FALL, AND GEORGIA/FLORIDA CALVING AREAS USED DURING WINTER. RIGHT WHALES, INCLUDING MOTHER/CALF PAIRS, CAN BE FOUND 1/4 MILE OR MORE OFF ONSLOW BEACH FROM 1 NOVEMBER TO 30 APRIL. RANGE CONTROL REQUIRES RANGE SWEEPS DURING THIS PERIOD IN CONJUNCTION WITH LIVE FIRING EXERCISE INTO THE N-1/BT-3 IMPACT AREA.**

(g) The EMD will distribute a Critical Sightings Program guide to all training crews operating offshore of Camp Lejeune.

(4) Operating Procedures and Collision Avoidance

(a) While in transit, vessels will be alert at all times, use caution, and proceed at a "safe speed" so that the vessel can take proper and effective action to avoid a collision with any marine animal and can be stopped within a distance appropriate to the prevailing circumstances and conditions.

(b) When whales have been sighted in the area, vessels will increase vigilance and take reasonable and practical actions to avoid collisions and activities that might result in close interaction of Navy/USMC assets and marine mammals. Actions may include changing speed and/or direction and are dictated by environmental and other conditions (e.g., safety, weather).

(c) Vessels will maneuver to keep at least 1,500 feet. (460 meters) away from any observed whale and avoid approaching whales head-on. This requirement does not apply if a vessel's safety is threatened, such as when a change of course will create an imminent and serious threat to a person, vessel, or aircraft, and to the extent vessels are restricted in their ability to maneuver.

(d) Restricted maneuverability includes, but is not limited to, situations when vessels are engaged in dredging, submerged operations, launching and recovering aircraft or landing craft,

minesweeping operations, replenishment while underway and towing operations that severely restrict a vessel's ability to deviate course. Vessels will take reasonable steps to alert other vessels in the vicinity of the whale/whales.

(e) Where feasible and consistent with mission and safety, vessels will avoid closing to within 200 yard (183 meters) of sea turtles and marine mammals other than whales (whales addressed above).

(f) Floating weeds, algal mats, Sargassum rafts, clusters of seabirds, and jellyfish are good indicators of sea turtles and marine mammals. Therefore, increased vigilance in watching for sea turtles and marine mammals will be taken where these are present.

(g) Everyone conducting waterborne operations shall be alert for possible manatee encounters. If a manatee is sighted, personnel shall immediately slow to a no-wake speed, allow sufficient room for the manatee, and maneuver cautiously away from the encounter area. All sightings are to be reported to the EMD at (910) 451-5063.

## 7. Endangered Plants

a. Two Federally-protected and two other "species of concern" are found aboard Camp Lejeune. It is unlawful to remove or possess federally-listed plants. Cutting, digging up, maliciously damaging or destroying Federally-listed plants or species of concern is a violation of the laws/regulations protecting these species.

b. Rough-Leaf Loosestrife. A Federally-listed endangered plant usually found in or adjacent to pocosin. Buffer zones for Rough-leaved Loosestrife are clearly marked as restricted areas, with a single band of white paint on the lower portion of tree trunks and/or signs reading "Restricted Area Endangered Species Site." The restricted area will extend 100 ft. from the outermost plant. The following restrictions protecting the Rough-Leaved Loosestrife apply:

(1) No off-trail vehicle use within marked habitat.

(2) No earth disturbing activity (e.g., excavating, digging fighting holes) within marked habitat.

(3) No drainage activities that might alter site hydrology within marked habitat.

(4) No bivouacking or extended occupation (2 hours or less) within marked habitat.

c. Seabeach Amaranth. A Federally-listed threatened plant found in the beach overwash areas and the zone between the high tide mark and the front of dunes of Onslow Beach. Seabeach Amaranth sites are

roped off and posted with "No Vehicles Allowed" signs. All vehicles must stay out of these sites.

d. Venus Flytrap. The Venus flytrap is a rare and easily identifiable state-protected species. Digging up or poaching Venus flytraps is prohibited.

e. Coastal Goldenrod. Camp Lejeune is home to three of the five known populations of this recently identified species. Some sites are marked "Conservation Area." Units shall refrain from excavations, heavy site disturbance, or excessive vehicle movement in these areas.

f. Conservation Areas. Conservation Areas are designed to protect species at risk or especially sensitive habitats (e.g. Hirst's panic grass, coastal goldenrod, and nesting shorebirds) and are posted with signs marked "Conservation Area". The following actions are prohibited in conservation areas:

(1) The use of any vehicle off designated roads/tank trails.

(2) Any earth disturbing activity such as excavating or digging fighting holes/fighting positions.

(3) Bivouacking and the establishment of command posts.

## 8. Land and Wildlife Resource Issues

### a. Land Use

(1) Camp Lejeune promotes soil conservation and makes efforts to restore and repair TAs degraded by erosion. This may include culvert replacement, repair of tactical trails, use of silt fences, and the grading and reseeding of TLZs and artillery GPs.

(2) The above activities are coordinated through Range Control. Range Control will notify trainers of any TAs temporarily closed for soil conservation and erosion repair. These areas will also be posted with signs, fences, or barricades. Personnel shall stay out of these areas.

(3) Camp Lejeune also protects wetlands (swamps, creeks, streams, marshes, open water areas). Use maintained tactical vehicles trails whenever possible to avoid damage to wetlands. Avoid wet and low-lying areas during off-road tactical vehicle movement.

### b. Wildlife Resource Use

(1) Camp Lejeune also supports a variety of recreational activities in areas not scheduled for training use. These activities

include fishing, hunting, trapping, fire wood cutting, shell gathering, scouting, and bird watching.

(2) Unscheduled TAs are turned over to the CLEO for recreational use such as hunting. This makes it extremely important that military units schedule the TAs they want to train in via RFMSS.

When conducting training, units must ensure they stay within the areas they have scheduled to ensure the safe deconfliction of their training with recreational activities.

(3) The CLEO will control hunting, fishing, trapping, shell gathering, fire wood gathering, and bird watching in TAs. Hunters are not authorized to hunt from or within any live-fire range complex/impact area as defined by reference (a), which includes the cleared range footprint defined by the assembly area, firing positions, left and right lateral limit signs, and the last row of targets. Hunters are not authorized to hunt from or within any TLZs, runways, training facilities/complexes (classrooms, towers, and road networks), or inside and near buildings. Hunters are not authorized to hunt or travel along Highway 172 between the Hubert/Triangle Gate and Sneads Ferry Road when noted as "Closed." Hunters are not authorized on Lyman road between the Hubert/Triangle Gate and Sneads Ferry Road when noted as "Closed." When GH/GI TAs are marked "HOT" the AIWW and N-1/BT-3 are "Closed" from the Onslow North Tower to Bear Inlet. A special access permit is required for all personnel using boat launches. Hunters and boaters are allowed to park along Freeman creek road and in the vicinity when open to hunting. They cannot block the road or prevent access to the boat launch per reference (x). GSRA hunters are not authorized to unlock gates or access CC Road when noted as "Closed." Hunters within the MCOLF Oak Grove are not authorized to hunt on runways, TLZs, or in the recreation areas.

(4) Training units must avoid wildlife food plots (they are small, tilled/planted clearings marked with signs). Do not train in them, drive through them, or establish bivouac sites/command posts within them. Units must also avoid the mowed, maintained shorelines around managed fishing ponds.

c. GSRA Wetland Mitigation Bank

(1) The GSRA Wetland Mitigation Bank is an officially designated preservation area that was created to provide wetland mitigation for wetlands that were filled for the construction of GSRA training ranges.

(2) The mitigation bank is comprised of two separate areas totaling 1,250.5 acres, including a portion of the Big Shakey Swamp (143.4 acres) in the ST/SV TAs, and a portion of pine flatwoods and pocosin wetlands (1107.1 acres) in the SL Training Area.

(3) The GSRA Wetland Mitigation Bank must be protected and as a result is off-limits to certain training activities.

(4) The Big Shakey Swamp is not accessible by roads. The pine flatwoods and pocosin wetlands in the SL TA are bordered by; South Pocosin Road (to the north), Ditches Road (to the South), South Bay Road (to the east), and Prince Trail (to the west).

(5) No tactical vehicles or any type of ground disturbance is permitted within the GSRA Wetland Mitigation Bank boundaries. Training activities within the GSRA Wetland Mitigation Bank boundaries shall be limited to foot traffic only. No tactical vehicles are permitted on Watershed Road, Blue Heron Road, or South Pocosin Road.

#### 9. Generators and Fuel Storage Areas

a. If an expeditionary refueling point is established, all fuel containers, hoses, nozzles and connections will have secondary containment and will be checked frequently to detect fuel leakage. Fuel Tanker vehicles shall be parked in such a manner as to avoid the possibility of spilled fuel entering natural or man-made drainage systems. Tanker vehicles will have spill containment under them while staged. Refueling operators will stay with the vehicle during the entire field exercise. Spill kits will be located next to the secondary containment.

b. Generators and floodlights will be placed in secondary containment. The secondary containment will be set up properly, so as to contain any spill that might occur. Spill kits will be located next to the spill containment. Generator sites that are operational during the night will be checked hourly for detection of fuel leaks.

c. Accumulated, used, absorbent pads will be collected in properly marked containers.

#### 10. Spill Prevention, Containment, and Clean Up

a. Prevention of oil and HAZMAT spills and the resulting environmental damage is the responsibility of all commanders.

b. Personnel onsite shall attempt to contain the spill by using spill equipment or by erecting a sand/earthen dam around the perimeter of the spill to preventing the spill from entering bodies of water or a storm drain.

c. Spill Notification. The ROIC/RSO/Commander will call 911/Fire Department first and notify BLACKBURN second. See paragraph 16 for addition guidance on proper procedures and response requirements.

d. Keep unnecessary/unauthorized personnel out of the spill area.

e. The unit will provide personnel and equipment to support spill containment and clean up. Contaminated spill pads will be collected, double-bagged, and placed in the appropriate hazardous waste (HW) drum.

f. Leaking Equipment. Any vehicle, generator, or other equipment identified as leaking anti-freeze or other petroleum oils, fuels or lubricants (POL) will be immediately removed from service and the TA. All releases of POL/HM/HW within the training complex shall be called in to the Fire Department at 911 and followed by notification to BLACKBURN. Units will capture incidental leaks by placing absorbent matting under the area of discharge. Using units are responsible for the turn-in of contaminated matting to the EMD after coordination with the unit's Environmental Compliance Officer (ECO).

g. If there is a spill, digging shall not occur until advised to do so by the unit HAZMAT representative. The EMD will evaluate the spill site to determine if soil shall be dug up or biologically remediated in place.

#### 11. Off-Road Vehicle Movement

a. Do not drive around any shut/locked gates, through chain-link fences, or enter areas that are posted as "Hazardous Waste Site," or "Authorized Personnel Only." These controls are there for a reason. When grasses and shrubs are damaged or removed as a result of vehicle movement, the bare soil is subject to erosion. Over time, erosion results in a barren area of deep ruts, large holes, and flooding, greatly restricting foot, and vehicle movement. Report excessive damage to roads, trails, and vegetation to Range Control so necessary corrective measures may be taken. Personnel on foot shall not cross into any area marked or fenced off as a HAZMAT site.

b. Tracked vehicles must stay on tank trails transiting to/from designated TAs, i.e., TLZs accessible by tank trails, free play tracked vehicle TAs designated by Range Control (ETA-2/IF TA, Combat Town/LZ Hawk/HF TA). Consult Chapter 3 of this Order regarding scheduling of the above mentioned areas.

c. Tracked vehicles are to avoid wetlands and low areas (which includes much of Camp Lejeune).

d. Trench systems and tank traps are authorized in designated free play tracked vehicle areas after approval by Range Control and the EMD.

e. Trees will not be knocked down by any military vehicle unless approved by RDMD in writing.

f. Take measures to reduce the silting of streams caused by vehicles at fords and approaches. Areas showing signs of erosion will be avoided, especially by heavy equipment and tracked vehicles. No digging is allowed in these areas.

## 12. Fighting/Mortar Positions

a. Fighting holes, fox holes, authorized mortar positions, trench systems, tank traps, hull-down positions for tanks and artillery, and other fighting positions are an important part of training and are authorized in many areas like ETA-2/GP-23. However, everything you dig must be refilled and leveled out after your training! All ground repairs will be done within 24 hours of the end of the training. This will prevent erosion and enable other units to use this area safely.

### b. When Digging In

(1) Do not dig any manner of hole nor deposit any manner of fill in wetlands. If you think you are in wetlands, go to higher ground before digging.

(2) Dig tank traps, fighting holes, and authorized mortar positions only in authorized areas. Do not cut tank traps, dig fighting holes, or create obstacles in TLZs/GPs/MPs/designated re-forested areas.

c. Expedient roadblocks on tank trails (not authorized on paved roads) must be kept under observation and manned while in use during tactical exercises; emergency vehicles and/or official observers /vehicles may require access. When not in use, remove all tactical wire and obstacles from the tanks trails/TAs.

d. UXO. If UXO is discovered during digging activities, immediately stop digging, retreat to a safe area, and contact BLACKBURN.

e. Groundwater-monitoring wells are located throughout the TAs and may be encountered during training. If a monitoring well is inadvertently damaged, immediately contact BLACKBURN and the EMD EQB at (910) 451-5068 for further instructions.

f. Excavating or digging within the marked boundary of an archeological site is prohibited unless expressly approved by the Archaeologist at (910) 451-7230/5063.

## 13. Laying Cable and Field Wire

a. Use of communication wire and concertina/barbed wire is essential during training, but when these wires are left behind, they become hazards.

b. When using cable and field wire during training, units must:

(1) Recover and police up all communications and concertina/barbed wire. Old wire lying in the underbrush and along the road can become tangled around Marines, animals, and tracked/wheeled vehicles; it also impedes forestry operations.

(2) Double check to ensure you have picked up all trip wires, especially those connected to pyrotechnic training devices. It is the using unit's responsibility to remove training devices such as flash bangs and trip flares from the TA. These items must be turned in as required.

14. Cutting Brush and Trees

a. Forested areas are an extremely important resource on Camp Lejeune for both training and the environment. When cutting brush and hardwoods for camouflage, do not cut or knock down any standing pine or hardwood trees. Do not cut any hardwood tree limbs larger than the diameter of your arm.

b. Units are prohibited from cutting trees by explosive methods or chainsaws without a SRR and FEREIR. Units are prohibited from knocking over trees with vehicles/equipment. Tree cutting requests must be submitted to the EMD (via a FEREIR), and must indicate the number, size, and physical location of the trees.

c. Cutting or damaging of pine trees of any size is prohibited anywhere on-base, except by permission of EMD, or in cases of a hazard to human safety.

15. Archeological Sites

a. Many archeological sites are located throughout the TAs of Camp Lejeune. Reference (u) directs protection against unauthorized excavation, removal, alteration, or defacement of archeological resources. Significant sites will be marked with the following signs:

**RESTRICTED AREA**  
**EXCAVATION, DIGGING, VEHICLES PROHIBITED**  
**BY ORDER OF THE CG MCIEAST-MCB CAMLEJ**  
**or**  
**SENSITIVE CULTURAL AREA**  
**RESTRICTED ACTIVITY**  
**NO DIGGING**  
**NO TRACKED VEHICLES OFF of**  
**DESIGNATED TANK TRAILS**  
**Reference: Base Order 5090.8**  
**Call EMD/ECON at (910) 451-5063/7230**  
**for further information**

b. Potential sites not yet evaluated, will not be marked, but potential impacts will be assessed on a case-by-case basis. Training-related impacts to archeological sites will be assessed and appropriate measures taken to minimize/mitigate the effects.

c. In established archeological areas with signs indicating an archeological site, training is restricted as follows:

(1) Walking across these areas is permitted; digging, tampering with the site, or collecting bone/artifacts from the site is strictly prohibited.

(2) Driving tracked vehicles on these sites is strictly prohibited. Tracked vehicles are restricted to existing trails in order to preserve these unique cultural resources.

(3) Operations or projects on or around marked sites require approval from the Archeologist. For clarification of training impact adjacent to these areas, contact the EMD at (910) 451-5063/7230.

d. If human remains are discovered in any RTA or facility, immediately stop all ground disturbing activities to avoid further disinterment. Notify BLACKBURN as required.

e. The collection of archeological material (i.e., stone tools, pottery, bone) is prohibited on Onslow Beach by reference (t).

#### 16. Field Waste Disposal

a. Field mess facilities generate four types of waste: liquid, garbage, rubbish, and possible human waste. Disposal of this waste must not create conditions that endanger personnel health. The ROIC/RSO has a responsibility to supervise and inspect RTAs and training facilities to ensure they are policed properly and field waste disposed of properly.

(1) Via the Camp Lejeune Waste Water Treatment Plant (WWTP) free of charge. Collect all gray water in tanks or bladders and contact the WWTP staff at (910) 451-7190, extension (ext) 231, ext 232 ext 224, or the 24-hour operator at ext 225 for coordination. The unit must arrange for hauling to the disposal point.

(2) Utilize one of the existing leach fields at TLZ Bluebird (Grid 87079-26464), TLZ Canary (Grid 849-283) or Mile Hammock Bay (Grid 865-263). Monitor the flow into the leach field to avoid overspill. Do not dispose any type of hazardous liquids into the leach field.

(3) Collect all gray water in tanks or bladders and contract the disposal to a portable toilet service for their fee.

(4) Construct a soakage trench if the site conditions allow for proper treatment of the wastes. Coordinate with the EMD for authorized disposal of grey water wastes via soakage trenches at (910) 451-5063.

(a) A soakage trench consists of a central pit, two ft. on a side, one ft. deep, with trenches at least six ft. long outward from each side of the pit. Trenches must be one ft. wide and one ft. deep at the central pit, increasing to one and one half ft. deep at the far end. Fill the bottom of the pit and trenches with small rocks which the using unit must request, purchase, or contract. One soakage trench can absorb the liquid waste from 200 diners for up to two weeks. If the field mess is to be used for more than two weeks, construct two trenches for each 200 diners and rotate them daily.

(b) A grease trap must be placed between the field mess or shower unit and the soakage trench. (It may be of the filter or the baffle type.) This removes grease, scrap food, and other suspended solids and ensures the soil will be able to absorb the remaining gray water. Suspended solids will be considered as garbage and must be removed by the using unit.

(c) Field showers/mess units must be located on adequately drained soils, at least 150 ft. from nearest surface water and at least 500 ft. from nearest drinking water well.

(d) Closing the soakage trench:

1. Fill the trench with successive layers of earth, packing each layer down before adding the next.

2. Mound the trench with at least one ft. of compacted dirt.

3. Spray the mound with an approved residual insecticide.

4. Call Preventive Medicine Unit, Naval Hospital, at (910) 451-5707, to inspect soakage trenches before use and after closing.

b. Garbage. Garbage is solid/semi-solid wet waste resulting from shower units, food preparation, cooking, and serving. Garbage attracts flies and animals to field mess facilities and bivouac sites, which greatly increases the risk of disease transmission and personal injury; it also quickly decomposes, causing unpleasant odors. Follow these handling guidelines for garbage:

(1) Return garbage to an administrative mess hall for disposal. Keep it in covered containers or plastic bags while in the field and during transportation.

(2) Do not leave trash like Meals Ready-to-Eat (MRE) bags on the ground overnight, even if it is contained in large plastic bags. Place all trash in dumpster as required.

(3) Store open food in lockable or animal proof containers. DO NOT FEED WILD ANIMALS.

(4) Locate dumpsters away from tents, high pedestrian traffic areas, and high-speed roads. Do not place food/shower unit garbage in dumpsters. Unit will be responsible for placing and removing dumpsters.

c. Trash. Good habits formed with regard to trash handling pay off in combat. Expeditionary operations generate trash, but disciplined units leave no "intelligence" track for the enemy to exploit. There is no "magic working party" to clean up after your unit. Commanders of using units are responsible for policing Camp Lejeune's RTAs and training facilities that are used by that unit. To keep the TAs of Camp Lejeune usable:

(1) Police Assigned Area. Each unit utilizing a RTA or training facility is responsible for its state of police upon completion of scheduled training. Segregate trash by type; ammunition dunnage, brass (by caliber/mm), links, metal, cardboard, wood, and transport to the Recycling Center/Defense Logistics Agency-Disposition Services (DLA-DS) or landfill as appropriate or as required. Use dumpsters (when available) for small trash intended for the landfill. Burying or burning trash is never authorized.

(2) Crush and flatten all recyclable cardboard boxes and transport to the Recycling Center or place in green "cardboard only" dumpsters. Cardboard that is not acceptable for recycling, paste or paperboard, wax-coated, plastic-coated, and food contaminated cardboard, shall be placed in brown "trash" dumpsters.

(3) Do not place grass, leaves, pine straw, lumber, metal, pallets, dirt, metal items, or weighty materials in or next to the trash dumpsters. All wood products will be taken to the wood lot at the Landfill.

(4) Process ammunition boxes with reusable value through the DLA-DS via the unit S-4/Supply Officer. Units will transport scrap wood and unserviceable wooden boxes to the Landfill located on Piney Green Road to be weighed. Vehicles must have a weight ticket from the Landfill Scale Master prior to transit to the appropriate disposal facility. Once weighed, transport the wood debris to the wood-waste

site across the road from the landfill. "Usable pallets" will be taken to the Recycling Center, Building 978, next to the landfill. Do not dispose of used pallets in RTAs or facilities, as doing so provides more fuel for forest fires.

(5) Do not place any type of ammunition dunnage with the recyclable materials being transported to the Recycling Center. The using unit is required to turn in ammunition dunnage (ammunition cans, brass (separated by caliber/mm), links, and other items as required) to the DLA-DS.

(6) MRE wrappers/trash are currently not biodegradable. They must be picked up throughout the RTAs and facilities and disposed of in brown "trash" dumpsters.

(7) Report all dump/trash sites to Range Control at (910) 451-1240.

d. Human Waste. Bivouac sites established for longer than three days require sanitary chemical toilets. Requests are submitted through normal unit logistics channels for portable toilets. For planning purposes one portable toilet will support 25 Marines in a 24 hour period. The use of large, field expedient head facilities (i.e., slit trenches, four-holers) can be authorized. Contact the EMD for site evaluation and consult local preventative medicine units for guidance on using slit trenches and four holers. "Cat Holes" are permissible in remote TAs but are not authorized in RCW areas and wetlands. Units must ensure human waste sites are closed properly and all holes are filled in.

e. Solid Waste Management

(1) Due to animals and wind, which will scatter trash creating an additional police problem, stockpiling refuse for later removal is not authorized.

(2) Open burning of solid waste as a method of disposal is prohibited.

(3) MRE heaters will only be disposed as solid waste after they have cooled down from activation. MRE heaters will be discarded as a HAZMAT if it is unused.

17. HAZMAT, HAZMAT Spills, and Spoil Areas

a. HAZMAT. Spills of HAZMAT, fuels, and POLs of any quantity on land and water must be reported promptly to the Fire Department by telephoning 911 first, and Range Control (BLACKBURN on 34.70 MHz or (910) 451-3064), secondly. After reporting the spill, the unit responsible will follow guidance received from the Fire Department or

senior onsite EMD representative, assist in clean-up of the spill and management of the recovered product/contaminated soil. Oil soaked dirt must be dug up by the spilling unit and placed in a metal drum or a hard plastic spill container. Unit personnel will coordinate with their Unit ECO and will be responsible for the transportation of the contaminated soils to the Camp Lejeune Hazardous Material/Hazardous Waste Consolidation Site at Building 977/S-962, (910) 451-1482. Higher authority must arrange contract spill response for any spills that could potentially impact the Atlantic Ocean, AIWW, New River, or salt marshes.

b. Battery Waste. Properly manage batteries according to existing environmental standard operation procedures. ECOs may coordinate with the Camp Lejeune Hazardous Material/Hazardous Waste Consolidation Site Managers at (910) 451-1482 for the receipt of batteries directly from field operations. Batteries shall not be buried in the RTAs.

c. Fuel Storage Restrictions. Units wishing to establish tactical fuel farms must submit a FEREIR to the EMD. Range Control and the EMD must approve locations for tactical fuel farms. Prior to approval, unit personnel must receive a briefing on fuel storage and spill response by the EMD. Coordination for the required briefings, spill response, and fuel storage requirements or coordination for removal of contaminated oils, fuels, transmission fluid, anti-freeze may be completed by calling the Resource Conservation and Recovery Section at (910) 451-1482. Use of containers with a 55 gallon or greater capacity must be coordinated with the Environmental Compliance Branch Military Liaison at (910) 451-1482 and must be placed within a soil or sandbag berm with an impervious liner. Each storage or use area must be marked, per reference (v), have a current and properly posted spill plan, have appropriate spill response, and communication equipment immediately available at the site. A complete list of requirements will be provided by the EMD. Contaminated oil, fuel and anti-freeze shall be stored within properly marked containers and returned to the unit motor pool or the unit must have coordinated with the EMD for the removal from the field.

d. Munitions. Per reference (w), if a munition/round lands off-range (Round Out of Safe) and is not promptly rendered safe and/or retrieved, the munition will be subject to Resource Conservation and Recovery Act (RCRA) authority and considered a solid waste. Units with "Rounds out of Safe" must document them by reporting the information to BLACKBURN on the net or by phone at (910) 451-3064/4449 or by contacting Range Control. **Disposal of unused munitions or munitions debris by burial or any other method is prohibited.**

**Note: Before any construction/digging of any type aboard this Installation within a range, training facility, or TA, a UXO anomaly**

**survey must be conducted and coordinated with the RDMD at (910) 451-1307/451-2411.**

e. Spoil Areas. The spoil containment berm located from Grid 8677-2616 to 8674-2619 to 8647-2638 to 8680-6393 is a restricted area and off-limits to all unauthorized personnel. This berm contains the dredging spoil from the Mile Hammock Bay dredging project. The spoil is the consistency of quicksand and poses a severe hazard to anyone who might inadvertently enter it. A newly created spoil area at Weil Point (Grid 875-350) contains dredging spoil from the French Creek area. It is also a hazard area and is off-limits.

#### 18. Beach Operations

a. Any marine environment is very fragile and extra caution is required to ensure that the balance of nature is not disturbed. Camp Lejeune, with its ocean beaches, AIWW, inlets, marshes, and bays is no exception. During the sea turtle nesting season, Camp Lejeune EMD personnel must be able access all of Onslow Beach each morning (and hourly during nighttime training) to survey for and move nests. Accommodations must be made to allow EMD personnel access to and/or the ability to transit through the training area.

b. Camp Lejeune's ocean beaches are important training and recreation assets. By following these simple rules we can preserve our beaches:

(1) Never disturb, remove grass, or plants from the beach. Dune plants help prevent erosion.

(2) Exit and enter the beach only at designated areas by poles marked with black and yellow striped signs.

(3) Keep all heavy equipment, track, and wheeled vehicles off the sand dunes and vegetation.

(4) Leave the sand fences alone. They help build new sand dunes and prevent erosion to existing dunes.

(5) Bivouac only on the north side of the beach road.

(6) Filling sandbags from the beach is not authorized.

(7) Fires/camp fires are not authorized on the beach.

(8) The ROIC must fill out a Range Control Beach Checklist when signing for the training beach and provide a road guard at the gate. Upon completion of training and police call, the beach must be inspected by a Range Inspector.

c. Rules regarding the recreational vehicle use of the beach are covered in reference (t), Use of Off-Road Recreational Vehicles (ORRVs). Copies of the Order may be obtained by calling the Environmental Conservation Branch at (910) 451-5063 or it can be found on the MCIEAST-MCB CAMLEJ Adjutant website at: <http://www.mcieast.marines.mil/StaffOffices/Adjutant.aspx>. Beach Permits and stickers are required to drive ORRVs on the beach. They can be obtained at the CLEO at (910) 451-2196 or at the Onslow Beach Caretaker's (MCCS) office at (910) 450-7502.

d. Training exercises will generally be limited to the operating area at Grid 908-268 and Grid 883-251. The RCO must approve requests for use of additional beach operating area. In all cases, the beach must be signed for at Range Control.

(1) Special-use Area #1. The area 750m northeast of Grid 883251 is available from November-March, when more maneuver or landing area is required.

(2) Special-use Area #2. The area 500m northeast of Onslow Beach North Tower is available for live-fire exercises (Stinger/Avenger shoots, etc.) following coordination with Range Control. During the sea turtle nesting season, specific measures must be implemented to prevent disturbance to nesting females or hatchlings. These include the following:

(a) Sandbag walls will be placed around any vehicle or equipment left on the beach overnight.

(b) Vehicle traffic, at less than 10 mph, will be restricted to below the high tide line.

(c) The training unit will be responsible for smoothing the beach and removing debris once the exercise has concluded.

(d) Any deep ruts or large mounds that create a safety hazard or obstacle to vehicles needing to access the beach will be smoothed out by the responsible unit.

e. Egress from the beach to the road behind the sand dunes shall be at designated egress routes. Vehicular traffic is prohibited on or between the dunes. Access points for military traffic are marked by poles marked with black and yellow striped signs in the vicinity of the following grids:

(878-248)	(883-251)	(885-253)	(887-254)
(889-256)	(891-257)	(893-258)	(895-260)
(897-261)	(899-263)	(900-264)	(901-264)

f. There are two beach access points for ORRVs: old Riseley Pier area (Grid 901264) and old South Tower area (Grid 883-251), per reference (t).

g. Temporary bridging and causeway use must be coordinated and scheduled through RFMSS at least 60 days in advance with Range Control at (910) 451-3065/1240/1236.

19. Environmental Assessment. The NEPA requires that careful considerations be given to environmental impacts of proposed projects or actions. Further, it requires the consideration and documentation of alternatives to the proposed action. Some training exercises require the preparation of an Environmental Assessment. Examples include training impacts on wetlands, endangered species, archeological sites, and some training exercises taking place on or over non-military property. In those cases, and whenever there is any potential for significant environmental impact, exercise planners shall consult the appropriate directives and then contact Range Control. The POC for more information about environmental assessment is the EMD, NEPA Section at (910) 451-4542/9363.

20. Graffiti. Graffiti on any structures within the RTAs/training facilities will not be tolerated and perpetrators will be punished to the full extent of the law and the UCMJ.

## Chapter 3

### Scheduling

#### 1. General

a. The Range Control Scheduling Office (located at Range Control, Building 54 on Post Lane) processes requests for hundreds of using unit RFMSS accounts supporting both tenant and non-tenant commands training at Camp Lejeune. The scheduling office reviews, approves, or disapproves all training requests. The training unit must request to schedule all RTAs and training facilities in RFMSS. Contact the Range Control Information Technology Specialist at (910) 450-7966 for RFMSS training, which is conducted once a month, as well as website information. The key to successful training at Camp Lejeune is planning early, timely scheduling in RFMSS by the using units, properly deconflicting all known conflicts, following up, and unit training management.

b. In accordance with reference (x), RFMSS is the centerpiece of the Range Management System; it is the approved USMC RTA scheduling and management tool. This system provides a standard, integrated, web-based program that installation RTA management personnel can use to schedule training support for users and manage USMC RTA property usage. RFMSS supports all major range management processes, to include unit/organization RTA requests, subsequent Range Control approval/disapproval action, and the automation of range fire desk operations.

c. The scheduling office utilizes RFMSS to schedule, identify conflicts, track, and report utilization of all RTAs, training facilities, ammunition expenditure by DODIC, airspace, and sea space aboard Camp Lejeune. RFMSS requests will be accepted no later than two (2) working days, forty-eight (48 hours) prior to the first day of the scheduled training event. Change to read: RFMSS requests will be accepted no later than two working days (48 hours) prior to the first day of the scheduled training event with the exception of facilities and/or venues that do not involve or impact upon live-fire training.

d. The Range Scheduling Office is the primary scheduling and approval agency based on sound business practices for all aboard Camp Lejeune with the following exceptions:

(1) The rifle and pistol ranges located at the Stone Bay Range Complex (SBRC) are scheduled through the CO, WTBn, Stone Bay (S-3). The telephone number is (910) 440-2917/2918/2687 and FAX (910) 440-2642.

(2) Ranges located at the SBRC; II MEF EOTG and MARSOC Compounds. EOTG ranges are scheduled via EOTG S-3 in RFMSS by the requesting command and for MARSOC ranges within the MARSOC Complex by the MSOS S-3. EOTG range requests must be coordinated through the OIC, EOTG (S-3) telephone number: (910) 440-2982/2676/2871 and FAX (910) 440-2983. EOTG will forward all coordinating e-mails to the Range Control Scheduling section. To request use of a MARSOC range a Training Area Request (TAR) will be submitted to the Marine Special Operations School (MSOS) S-3 Operations Training Specialist at (910) 440-1188 or the Training and Operations Planner at (910) 440-1187. MSOS will input the request into RFMSS and notify the requesting unit's S-3 of the scheduling of the range and the RCNI number once the request is approved by the range control scheduling section, per the current edition of reference (y).

(3) Only the Range Control MOUT Staff can schedule MOUT facilities within RFMSS, which includes: Lejeune MOUT, Enhanced MOUT (E-MOUT), Mobile MOUT, MOUT Sniper Tower, MOUT UTFs, Forward Operation Base Hawk (FOB Hawk), Combat Town, LZ Raven, LZ Pigeon, and ALZ-28. Units desiring to train in any of the MOUT facilities shall contact the MOUT staff at (910) 451-2364/0752. All MOUT Facilities must be scheduled in RFMSS and signed for at Range Control

(4) Using Units will schedule the use of the Lejeune and Geiger Gas Chambers via RFMSS directly. Units desiring to use the Gas Chambers will be required to have the proper number of 5702s/5711s SSgt or above with a current ROIC/RSO card. All 5702s/5711s must be listed on the Units Command Certification Letter as CBRNE military occupation specialties regardless of rank (Pvt to MGySgt and WO-1 to CWO-5).

(5) Training Tank Staff will schedule use of the Area 5 training tank at 451-2027 and Courthouse Bay Training tank at 440-6005. The training tanks are under the direct control of the Director, Training Support Division.

(6) MAET (Modular Amphibious Egress Trainer) can be scheduled by contacting the Support Coordinator, MAET at (910) 451-4963.

(7) Ground Training Simulators located at the Lyman Road Site will be scheduled through the Site Manager at (910) 450-5126. These include the HEAT, MET, SAVT, CCS, ODS, and like type systems located at MCAS New River.

(8) The Infantry Immersion Trainer (IIT) will be scheduled through the Site Manager at (910) 451-4282.

e. All scheduled training is published via AHMS/Naval message in the Range Firing Warning and Airspace Utilization Order (RFWO) and that is also posted on the Range Control website. The RFWO is

transmitted one working day prior to the scheduled event or the last working day prior to the two day weekends, all holidays with long weekends such as federal holiday periods. Only the events promulgated in the RFWO are authorized in the RTAs and training facilities. Only the RCO and RCOO are authorized to change the RFWO after it is transmitted/published (Sent Out). Short notice contingencies will be handled on a case-by-case basis after verification by the units higher headquarters.

## 2. RFMSS

a. RFMSS is a computer-based, web-enabled database system that Range Control and all training units must use. Within RFMSS, units can view all training possibilities available via the two week calendar, such as conflicts, known restrictions, specific requirements as well as priority users for all RTAs and training facilities. RFMSS and this Order will provide the requesting unit with all necessary information to schedule training for their unit.

b. RFMSS terminals shall be located in all requesting unit operations and training S-3/G-3/G-7 sections. Using units must have a primary and alternate trained RFMSS clerks at all times. Unit COs are responsible for ensuring their units have the required trained RFMSS clerks. Range Control will conduct scheduled RFMSS training for new RFMSS clerks as required. Range Control Schedulers will also provide other support and entertain all reasonable questions, but **will not** schedule events for units or commands if they have the capability to do so.

## 3. General Scheduling Information

a. Requests for RTAs and training facilities will be submitted to Range Control, per the procedures stated below:

b. Tenant commands will submit RFMSS requests via the web directly to Range Scheduling for approval. All tenant commands and units will have priority of training aboard Camp Lejeune. Units external to Camp Lejeune like other military services, National Guard Units, reserve units, Federal, state, and local agencies must have prior approval from MCIEAST-MCB CAMLEJ (G-3/5) and the Commander, Marine Corps Installations Command (COMMCICOM) (G-3/5/7), if directed. TA Requests (TARs) from non-tenant commands will not be given priority over tenant commands unless directed by higher headquarters.

c. All Marine Reserve units, must submit scheduling requests for the use of the Camp Lejeune Range Complex through the Deployment Processing Command/Reserve Support Unit-East (DPC/RSU-E), Force Headquarters Group (FHG), Marine Corps Forces Reserve via a Feasibility of Support (FOS) message through AMHS/Naval message. These requests shall be forwarded to DPC/RSU-E via the PLAs DPC RSU-

EAST or RSU CAMP LEJEUNE NC. The DPC/RSU-E Operations section is located in Building 313 and the telephone number is (910) 451-2740/0547 or DSN: 751. All administrative procedures, RTA regulations, and scheduling priorities in this Order/Range Cards will apply.

d. Other civilian and military services, organizations, and agencies external like other Military Services, National Guard Units, Reserve Units, Federal, state, and local agencies to Camp Lejeune must request approval to train aboard Camp Lejeune from MCIEAST-MCB CAMLEJ G-3/5 via a formal Feasibility of Support message to **COMMCICOM whose plain language address (PLA) is COMMCICOM G-3-5-7 and CC the CG MCIEAST-MCB CAMLEJ G-3-5**. If military personnel or equipment is requested it must also be sent to Commander, Marine Forces Command PLA is COMMARFORCOM G-3-5-7 and CC the CG, II MEF G3. This request must include the type of training to be conducted, listing all required RTAs and training facilities, restricted airspace, adjacent waters and any logistics support needed. Upon approval, a "Liaison Officer" from that unit will be assigned to MCIEAST-MCB CAMLEJ (G-3/5) and Range Control. The "Liaison Officer" from requesting organization or agency will provide direct liaison between the requesting unit of the agency, Camp Lejeune, and other tenant commands as required. All administrative procedures, RTA and training facility regulations, and scheduling priorities are contained in this Order.

#### 4. Scheduling

a. All tenant formal, MOS-producing schools can schedule live-fire ranges, training area, and training facilities that directly support their program of instruction (POI) **up to 120 days prior** (110 days for USCG SMTC) to the planned activity. Intent is to allow these schools a 30 day priority over other units to schedule their school's training. Normally, units can request to schedule live-fire ranges, training areas, or any other training facilities up to 90 days in advance to the planned training activity. If available in RFMSS RTAs and training facilities can be requested as late as 0700 two working days (at least 48 hours or more) prior to the planned use. Exceptions include ranges that are close to the AIWW, the use of the N-1/BT-3 Impact Area, and training or operations in the Atlantic Ocean Sector, to include Onslow Bay, must be scheduled at least 45 days prior to use to allow publication of a Notice to Mariners (NOTMAR) and coordination with external agencies, per the Code of Federal Regulations. Ranges requiring aerial range sweeps (G-5, G-7, H-1, E-1 Ranges, and N-1/BT-3 Impact Area) require scheduling in RFMSS at least 65 days prior to usage for Range Control to submit a range sweep request prior to the 2d MAW FRAG conference. Submission of requests for range sweeps may or may not be approved by 2d MAW due to availability of aircraft. Units are ultimately responsible to ensure a range sweep aircraft is scheduled and approved for the ranges requiring the aerial range sweeps.

(1) 2d Tank Bn, 2d Light Armoured Reconnaissance Bn, and 2d Amphibious Assault Vehicle Bn can schedule their semiannual gunnery crew re-qualifications on SR-10 and SR-7 up to one year in advance. WTBn S-3 can schedule assigned ranges at Stone Bay Range Complex (SBRC) up to one year in advance.

(2) All military dive/Self-Contained Underwater Breathing Apparatus (SCUBA), open water swims, and rotary-wing CAS operations /training must be scheduled 14 days in advance of the event to ensure proper notification via NOTMARS and any other required coordination. Late requests for training events that require a NOTMARS or notification of the public **will not be approved.**

(3) All parachute operations scheduled in DZs within the Camp Lejeune area must be scheduled 35 days in advance of the date of the event to ensure proper notice via NOTAM. Range Scheduling will submit a monthly consolidated NOTAM Request. NOTAMs for late requests for Parachute Operations (PARAOPS) will be the unit's responsibility. RFMSS requests for PARAOPS must be submitted NLT three days (72 Hours) from the first day of the training event (see paragraph 1). A separate NOTAM worksheet must be submitted by the unit to Cherry Point Airfield Management no later than 72 hours prior to the event (See the worksheet in Appendix J). NOTAM worksheets must include the DZ to be used, location within a 25 nm of a civilian Navigational Aids (NAVAIDs) Listing Radial and DME from the NAVAID. The nearest civilian NAVAIDs for Camp Lejeune's DZs are Wilmington VORTAC (ILM) and Dixon NDB (DIW). See Table 4-7 and 4-8.

b. The MEU S-3 is responsible for the deconfliction and submission of all RFMSS requests generated by the MEU subordinate elements (MEU HQs, BLT/CLB/ACE Elements). Likewise, other Marine Air-Ground Task Force (MAGTF) commanders are responsible for the deconfliction and submission of all RFMSS requests generated by their subordinate elements and units to ensure proper coordination has taken place.

c. Requests to use artillery GPs, for which standard/approved safety data has not been computed or listed in the USMC Artillery Safety SOP, must include an overlay of the SDZ and must be surveyed by the 10th Marines Survey Section. Requests with survey results shall be provided to the Director, RCD 10 working days in advance of the first day of training.

d. Requests to use MPs for which standard/approved safety data has not been computed must include an overlay of the SDZ and must be surveyed by the 10th Marines Survey Section. Requests with survey results shall be provided to the Range Control (Director, RCD) 10 working days in advance of the first day of training.

e. During hunting seasons, all unscheduled TAs are opened to the CLEO for hunting. "Recreational Sheets" listing the open hunting areas (TAs not scheduled) are sent out to the different agencies aboard Camp Lejeune the day prior.

5. No-Shows/Late Arrivals. Units that cancel scheduled RTAs or training facilities must notify Range Control Scheduling Department during normal working hours or BLACKBURN after working hours immediately by phone, written communications, or e-mail. **There is no reason for a "No Show"**.

a. Late Arrivals. A unit must occupy a contractor-supported range with a responsible unit representative (not necessarily the ROIC/RSO) within one hour of scheduled "HOT" time or the range will be cancelled for that day. If a unit fails to arrive on a range that scheduled EOD support has been requested or has requested for down-range target emplacement within 30 minutes of the scheduled time, that unit forfeits the requested EOD support for that day. Requests for an extension may be granted if notified within the designated time requirements. During normal working hours Range Control requires two to four hour notification. Extensions can be granted after normal working hours, weekends, and holidays after BLACKBURN receives authorization by the approving authority. A contractor must be present at all times during the scheduled live-fire event on contractor-supported range unless pre-arranged with Range Control that contractor support is not required on that scheduled and signed for range.

b. Requests for EOD support must be submitted to the Director, RCD and the OIC/SNCOIC Base EOD five working days in advance of the first day of training.

c. RTAs and facilities may be used by more than one unit, on the same day if scheduled properly and deconflicted by time, by unit. There are two methods of use for sharing RTAs and facilities; **Co-using** and **Piggy-backing**.

(1) **Co-using** is encouraged when the following coordination, restrictions, and conditions are met:

(a) Co-using unit will contact the original requesting unit and coordinate use of a RTA or facility. Original requesting unit will send an e-mail to Lejeune Range Scheduling modifying their time, event, or area allowing the Co-using unit to schedule their training in RFMSS on the same date, de-conflicting by time or space. Co-using, the original scheduled unit will provide the ROIC/RSO and the Co-using unit or units on that scheduled range will also have its own ROIC/RSO/Corpsman and be communicating with BLACKBURN for the same weapons and ammunition scheduled in RFMSS by the original unit.

(b) More than one unit may use a range and training facility supported by a contractor if the scheduled hours of operations collectively do not exceed the contractor's daily hour limitations for that range/facility.

(c) MOUT facilities have restrictions emplaced on them for both single and multiple units conducting training based on the number of Marines, vehicles to be used, training activities and training requirements. MOUT facilities are deconflicted by event and area needed or the number of building/structures to be used so multiple units can use the limited recourses. These facilities are deconflicted and scheduled by the MOUT staff based only on the training unit needs/wants.

**(2) Piggy-backing** is discouraged even if the following coordination, restrictions, and conditions are met:

(a) The piggy-backing unit(s) must coordinate directly with the host unit (the unit that originally scheduled and signed for the range/training facility). The piggy-backing unit must be using the same weapon(s)/weapon system(s), and use the same ammunition by DODIC that the hosting unit scheduled and signed for. Piggy-backing, the original scheduled unit will provide the ROIC/RSO/Corpsman and the piggy-backing unit will fall under that unit's ROIC/RSO/Corpsman firing the same weapons and ammunition that is scheduled in RFMSS.

(b) The host unit agrees to the proposed piggy-back and all requirements set forth by this Order are in place, enforced, and supervised. The host unit must send an email to Lejeune Range Scheduling discussing this arrangement, control measures, and agreeing to the piggy-backing. Range Scheduling must approve the piggy-backing arrangement prior to its use.

(c) The host unit must let BLACKBURN know of the additional piggy-backing unit(s) and number of additional personnel and ammunition expended.

(d) The hosting unit must request Range Control approval to employ or change any item not on the original RFMSS request at least two workdays prior to actual firing time. The piggy-backing unit(s) will work through the hosting unit for approval of any changes.

(e) Range Control must authorize any changes to previously approved firing times or additional weapons/weapon systems or ammunition.

(f) If the host unit cancels training, the piggy-backing unit's training is also cancelled as well.

(g) If piggy-backing unit desires to resubmit for the range/area/facility, scheduling conditions mentioned in paragraph 4.a still apply. Any written SRR or agreements must be readdressed and re-approved.

d. Cancellation. When circumstances require cancellation of a previously schedule RTA or training facility, the cancellation will be made using RFMSS by the originator of the initial request. Every effort must be made to determine necessary cancellations and report them to Range Control or BLACKBURN in a timely manner.

e. The scheduling of a TA(s) will not include any of the other training facilities that may be located within the borders of that TA, such as MOUTs, FOBs, AFS Sites, TLZs, parachute DZs, GPs, MPs, OPs, or live-fire ranges in that training area. They must be scheduled in RFMSS separately and signed for separately. When there will be personnel on the ground supporting or being supported by rotary-wing aircraft in a LZ (externals, SPIE, rappelling, troop lift, hoisting operations, etc.), the LZs must be scheduled and signed for prior to training being conducted. If the ground unit is being supported, they will schedule and sign for the LZ. If the ground unit is supporting rotary-wing aircraft operations, the squadron conducting the event will schedule and make comments in RFMSS listing the supporting ground unit, supporting squadron, and who will sign for the LZ.

f. All live-fire ranges aboard Camp Lejeune must be closed at regular intervals for EOD sweeps/range maintenance in order to reduce UXO hazards and to conduct regular range maintenance and re-targeting. Priority and timing of closures will be determined by the Range Control and RDMD. Closures will be scheduled in RFMSS and annotated in the RFWO.

## 6. Special Range Request

a. Any deviations/changes from established RTAs, live fire range, training facilities, training events or approved training scenarios identified in this Order or in the Range Cards requires a SRR. Some minor/low risk training events are coordinated/approved via e-mails to the RSS like a bivouac request or adding additional DODICs to a range as an example. See Appendix E of this Order for more details regarding the creation and submission of SRRs as required.

b. All SRRs must be submitted to Range Control, via the RCO, no later than 10 working days prior to the planned event. Late entries will be considered only on a case-by-case basis due to coordination and planning involved in an SRR.

c. All SRRs must include the following:

(1) A letter from the Bn/Squadron Commander to the RCO requesting a specific/limited/detail deviation/waiver. SRRs can be signed "By direction" and must be endorsed by the Bn/Squadron S-3.

(2) An approved/reviewed and signed ORM assessment covering that special event must be included in the package.

(3) The planned Scheme of Maneuver (SOM).

(4) The weapons/ammunition by DODIC to be used.

(5) Any SDZs/WDZs necessary.

(6) Other information as required based on the planned event.

#### 7. Non-Standard Training Area Requests

a. Non-Standard TA Requests (NSTAR) must be submitted to CG, MCIEAST-MCB CAMLEJ (AC/S, G-3/5) and must be endorsed by the unit's chain of command (Example Bn, Regt, Div G-3, MEF G-7, and MSOB (Marine Raider Bn), MSOR (Marine Raider Regt), and MARSOC G-7) when a unit desires to train in an area or areas that is/are not designated as a RTA or training facility assigned to Range Control. Examples of such cantonment areas which are highlighted in red, orange, or yellow on the Camp Lejeune Special Map which includes Courthouse Bay, Camp Johnson, Camp Geiger, Stone Bay/EOTG/MARSOC Complex, Industrial Area, Hadnot Point (Mainside), French Creek, MCAS New River, family housing areas, and others areas as directed.

b. Training in the Camp Lejeune cantonment area is out of the scope of this Order. Although generally discouraged, requests to conduct field training within the cantonment area shall be forwarded to the CG MCIEAST-MCB CAMLEJ (AC/S G-3/5), for consideration and determination.

c. The requesting unit must submit such requests to the MCIEAST-MCB CAMLEJ G-3/5, attention Director, Operations and Plans Division. TECOM Formal Schools and other tenant commands shall submit their requests directly to MCIEAST-MCB CAMLEJ (G-3/5 Operations and Plans).

d. NSTARs must be submitted to reach MCIEAST-MCB CAMLEJ (G-3/5 Operations and Plans), at least 30 working days prior to commencement of training. This timeline is designed to allow sufficient time for thorough staffing and coordination. NSTARs require extensive coordination with MCIEAST-MCB CAMLEJ staff sections and tenant organizations depending on the training event. Additionally, certain specific NSTAR objectives may routinely requires approval by the CG MCIEAST-MCB CAMLEJ. Late NSTARs will not normally be accepted.

NSTARs that require use of A&E must be reviewed by the MCIEAST-MCB CAMLEJ Explosives Safety Office (ESO) prior to approval.

e. NSTAR Request Format. Requests must include:

- (1) Purpose of Request.
- (2) Detailed Concept of Operations Narrative.
- (3) Detailed SOM.
- (4) Training and Readiness Goals of the Training Event (Core skills and tasks).
- (5) Detailed Timeline of Training Events.
- (6) Risk Assessment, including a signed ORM Worksheet.
- (7) Weapons and ammunition to be used if required.
- (8) Individual and unit equipment to be used.
- (9) Map Sheet/Layout outlining the exercise area if required.
- (10) Any environmental requirements or coordination as required or directed. Using Units may be required to submit a FEREIR to MCIEAST-MCB CAMLEJ EMD.
- (11) Unit POC, including full name, rank billet, phone number, and e-mail address is required.

f. The requesting unit shall be prepared to brief the unit's NSTAR concept and details to the MCIEAST-MCB CAMLEJ staff sections at a coordination meeting prior to the training event.

g. The CG MCIEAST-MCB CAMLEJ is the final approving authority for all NSTARs; MCIEAST-MCB G-3/5 is the cognizant staff section, an action officer will be assigned, and a message released authorizing this event. Direct all NSTAR questions/issues to the MCIEAST-MCB CAMLEJ (G-3/5 Operations and Plans Division) at (910) 451-0375/451-8905. Direct Liaison Authority with other MCIEAST-MCB CAMLEJ organizations or staff sections shall not be assumed and must be requested. The MCIEAST-MCB CAMLEJ (G-3/5) will publish approval/disapproval/modification of all NSTARs via AMHS.

8. Scheduling Hikes/Conditioning Marches. All hike routes will be submitted to Range Control Operations Officer or the Range Control Operations Chief at least two working days (48 Hours) in advance of the conditioning hike/force march to ensure proper scheduling of the TAs and roadways. If the unit is conducting a hike within a lettered

TA the unit must schedule the TA in RFMSS. Units will include a map overlay and must fill-in and sign the Range Control Hike Checklist. A copy of this checklist is available on the Range Control website.

9. Priority of Training

a. In the event of conflicting requests, RTAs and training facilities will be assigned to requesting units in the following precedence:

(1) CAPEXs/VIPEXs, as directed Major Joint or Combined Training Exercises.

(2) USMC Formal Schools like SOI-E, MCES, MCCSSS, MSOS, training required by POI (120 Days). USCG SMTC has only (110 Days).

(3) Pre-deployment training or training in conjunction with assignment to contingency status (i.e. EOTG events in support of MEU PMINT, COMPTUEX, and CERTEX) and approved by the CG MCIEAST-MCB CAMLEJ AC/S G-3/5 and the RCO. Normal regular assigned deployments/PTP training receive only 90 day scheduling in RFMSS window.

(4) Special training directed by higher headquarters and approved by the CG MCIEAST-MCB CAMLEJ (AC/S G-3/5) and the RCO; gunnery requalification; testing, research, development and evaluation activities.

(5) Normal unit training/Pre-deployment Training Program/Unit Deployment Program cycle training (90 Days).

(6) Sports and recreational activities (MCCS) as scheduled.

b. Unique training activities that do not fit the categories above will receive a training priority from the unit's assigned higher headquarters via formal correspondence and approved by the CG MCIEAST-MCB CAMLEJ (AC/S, G-3/5) and the RCO. Range Control Scheduling will approve RFMSS requests based on sound business practices based on the type of training events requested/scheduled and the type of range being requested/scheduled to ensure limited resources (live fire ranges) are used properly/wisely/primary purposes (Economy of Management of Assets). Example a live fire and movement/maneuver range being used for BZO/CMP/Static Live Fire event.

c. Priority Range Assignments

(1) Unit training priority assignments are listed below. These range priority assignments do not preclude other units from requesting and using the range when it is not used by the priority unit. The list below is subject to change.

(a) Range R-100 (MCCS Skeet and Trap Range Only). This range is not authorized for military shotgun training.

(b) Engineer Training Area (ETA) ETA-9 and ETA-10. 2d CEB, 2d MarDiv if scheduled within 120 days.

(c) Range ETA-1, ETA-7, ETA-7A, ETA-7B, ETA-7C, ETA-7D and ETA-8. MCES if scheduled within 120 days.

(d) TLZs Albatross, Bluebird, Condor, Kite and Phoenix. 2d MAW (Marine Aircraft Group (MAG)-26/MAG-29) for HST Operations. All other operations must be approved by MAG-26/MAG-29.

(e) Camp Davis Runways (North/South), LHD Deck, and Oak Grove runways/LZs. 2d MAW (MAG-26/MAG-29) when scheduled in RFMSS.

(f) SR-10. 2d Tank Bn/2d AAV Bn has priority during scheduled semi-annual gunnery requalification when scheduled in RFMSS.

(g) SR-7. 2d LAR Bn/2d AAV Bn has priority during scheduled semi-annual gunnery requalification when scheduled in RFMSS.

(h) TLZ Vulture, SRR-227 Square Bay Pistol/Rifle Range, Non-Lethal Range, Breacher Facilities/Breacher Pit, RR-249 Shoothouse, RR-243 UTF, SRR-211 EOTG Vertical Training Facility/Tower, SRR-230 Murphy's Mountain and SRR-230 Rollins Peak. EOTG, II MEF has scheduling priority of the above listed ranges/training facilities when scheduled in RFMSS. All other II MEF units or MARSOC Units desiring to use these ranges/facilities will coordinate with EOTG S-3 for the scheduling, signing for ranges.

(i) Ranges/Training Facilities within the MARSOC Complex/Compound. MARSOC units only, unless approved by MARSOC G-3, G-7, and MSOS S-3.

(j) ALZs have been designated to specific units or Area Commanders and must be approved by that area commander for other units requesting that ALZ for training. (See Chapter 4)

(k) EOD-2 and EOD-3. All other EOD units desiring to use EOD-2/EOD-3 will coordinate and get approval with MCIEAST-MCB CAMLEJ EOD (Base EOD) before allowing it to be scheduled in RFMSS.

10. Bumping Procedures. A unit can be bumped off a range to support a higher priority/contingency as designated/directed by II MEF G-3/7, MARSOC G-3/7, TECOM Schools, or other tenant command. The RCO or RCOO will make every effort to relocate the bumped unit to a similar RTA or training facility or move the bumped training to another date that meets the unit's needs.

11. Notice to Mariners (NOTMAR)

a. All training events that affect the waterways around Camp Lejeune, to include the AIWW, the entire New River (all water sectors), Mile Hammock Bay, and Onslow Bay (N-1/BT-3 Impact Area), requires publication of a NOTMARS for coordination with external

agencies. W-122 15B airspace and the water space must be scheduled by the requesting unit directly to Fleet Area Control and Surveillance Facility, Virginia Capes (FACSFAC VACAPES) for events like Stinger Missile/Avenger live-fire events using Range E-1 and Naval Gunfire.

b. All events that require NOTMARS must be scheduled at least 14 working days in advance. Late requests for such events will not be approved without special justification and the approval of the Director, RCD/RCO.

c. Many of the ranges that require a NOTMARS also requires an air sweep to be conducted during daylight hours before going into a "HOT" status: E-1, G-5, G-7, H Ranges, Naval Gunfire, and N-1/BT-3 type events. In order to arrange the air support necessary for the sweep, these ranges must be scheduled at least two calendar months (65 Days) prior to the firing date. (e.g., A unit wants to fire across the AIWW in the month of March, the request must be submitted NLT the last working day of January.) Units requesting to schedule these ranges without the proper lead time are responsible for coordinating and requesting their own air support for the sweep. If there is no air sweep, no live-fire can be conducted. Ranges that fire over the AIWW can only conduct live-fire for one hour (during even hours) and must go "COLD" for one hour (during odd hours).

d. Units are also required to schedule the Restricted Area (Airspace) R-5306C Airspace with Cherry Point Range Management for those times while conducting live-fire with Stinger Missiles/Avenger live-fire events using Range E-1.

12. Notice to Airmen (NOTAM)

a. All training events that require GSRA airspace activation outside the published time of use (0600-1800 Monday-Friday) require a NOTAM be in place 24 hours in advance. Some examples of these events may be live-fire on GSRA ranges or parachute operations. Range Control coordinates a monthly NOTAM request message. Events that require a NOTAM must be scheduled in RFMSS 72 hours (three days prior to the first day of the month the event is scheduled in). This gives Range Control time to coordinate with external agencies prior to releasing the monthly NOTAM request message for the month the event will occur. (e.g., if a unit wants to shoot on SR-10 in the month of

March, the request must be submitted no later than five working days before the end of February.)

b. For each NOTAM previously submitted, a separate NOTAM Worksheet will be submitted by the requesting unit to Cherry Point Airfield Management no later than 96 hours prior to the start time of the scheduled event (see example worksheet at the end of this chapter). For questions concerning the NOTAM worksheet contact Cherry Point Airfield Management at (252) 466-6768.

c. All ParaOps require a NOTAM to be accomplished/approved. ParaOps training activities within the Camp Lejeune range complex that extend outside the GSRA also require a NOTAM.

### 13. Road Closures

a. When a requested event requires the using unit to close a major roadway, that event must be scheduled ten working days in advance in order for Range Control to publish a road closure message. Ranges requiring road closures include:

(1) Lyman Road Ops for (AV-8B) Harriers or F-35B Operations. Closes Lyman Road.

(2) G-29B and G-10 Convoy Range shooting the M2 .50 cal/.50 cal Sniper Rifle. Closes Highway 172.

(3) ETA-2 MICLIC (Inert) Line Charge. Temporarily closes a section of Highway 172.

(4) Naval Gunfire. Closes Highway 172 and the AIWW.

(5) G-6 CBC if requested and scheduled by the unit to close Highway 172. Road Guards are required to be posted.

(6) G-29B when using the .50 cal./M1-A1 120mm TP will close Highway 172.

(7) CVOT Highway 172 will close Highway 172.

(8) Other training events may require road closures/road guards if requested.

**Note: Lyman Road and Highway 172 cannot be closed at the same time.**

b. SRRs may require road closures/gates/barriers/road guards, depending upon the requesting unit's SOM, weapons, and/or ammunition.

c. The unit is responsible for posting all road guards, with required night/low visibility gear (i.e., road guard vests and

lights), securing required gates, maintaining communications with BLACKBURN and the assigned road guards at all time. Using Units must sweep/clear the roads and the affected TAs assigned prior to going into "HOT" status and report back to BLACKBURN that this has been accomplished.

#### 14. Check-Out/In Procedures

##### a. Responsibilities

(1) The Unit CO of the using/properly scheduled unit is responsible for the RTA or training facility and the safe conduct /proper utilization of the scheduled training.

(2) The Unit CO, or his/her designated representative, must read and understand this entire current/approved edition of the Range Control Order/Range Cards. Sections on the duties of ROIC/RSO, safety requirements, and special instructions for the range requested are especially important. The ROIC and RSO must know the weapons system/ammunition safety data, SDZs/WDZs, all restrictions, this Order, the Range Card for that range, and all applicable weapons safety publications. TMs/FMs/TCs/MCWPs/MCRPs/SOUMs and other required references must be in their possession while on the range.

(3) Per reference (a) all units must have a current Command Certification Letter (CCL) for all ROICs/RSOs for all live-fire training events signed by the unit CO. The Base RCO also requires all non-live-fire specialty personnel to be on the CCL due to the Hazardous/High Risk nature of the training. The CCL must be updated quarterly and is due before the beginning of the new quarter (January/April/July/October) or when directed. The original CCL must be provided to Range Control in the proper format, per Appendix M of this Order and each additional sheet of the enclosure signed. Updates to the letter's enclosure listing qualified personnel are NOT authorized to be sent via e-mail/FAX. Range Control must have the original letter. The Command Certification Letter also includes all non-live-fire certifications/qualifications specialists that must be in a current status such as; Dive Supervisors, Dive Masters, DZ Safety Officers, Jumpmasters, CAST Masters, Safety Insert Officers (SIOs), Forward Air Control (FACs)/Joint Terminal Attack Controller (JTACs), Naval Gunfire Liaison Officers, Shore Fire Control Party, HRST/HST qualified personnel, Breachers, Marine Corps Instructor of Water Survival (MCIWS), Marine Corps Instructor Trainer of Water Survival (MCITWS), HEAT Instructors, Laser Safety, all CBRNE 5711/5702 Marines regardless of rank, and CVOT instructors, UAS (UAS Mission Commander /UAS Pilot) or any other specialties no matter the rank of that person.

(4) Units are required to submit an "As Designated Letter" to Range Control if the unit expects to use more than three ROICs for any

particular scheduled event/exercise during that extended period of the scheduled training. The "As Designated Letter" eases some of the requirements to bring all of the ROICs to Range Control to sign out multiple events/ranges /facilities. ROICs are still required to report to Range Control and conduct any "Face-to-Face" requirements. The "As Designated Letter" also facilitates and eases turnover of the ROIC on that given day of training should an emergency arise or other duty requirements require his/her removal of current ROIC's duties. The new ROIC is required only to contact BLACKBURN for the change-over. The new ROIC change will take place once BLACKBURN verifies all necessary paperwork is in order. If that particular ROIC is not on the current "As Designated Letter", the unit will either submit an updated one or have the new ROIC come to Range Control and sign out that event/range/facility. Units can contact Range Control Scheduling for an e-mail example of the required format/letter.

(5) The Unit CO's designated representative must ensure the use of all required safety items, including but not limited, to range flag, light(s), phone(s), radios, barricade(s), flak jackets, helmets, eye and hearing protection, emergency pyrotechnics if required by the using unit, illumination device(s) and reflective vests, safety vehicle, corpsman with required medical kit, binoculars, special range checklists, instructions, and scenarios.

(6) The Unit CO's designated representative must complete all required coordination/deconfliction in advance of the scheduled training event to include any environmental requirements like a FERREIR if required. The ROIC/RSO is responsible for unit's conduct, proper utilizations, and safety of that RTA or training facility that is properly scheduled and signed for and all other requirement set forth in this Order. The Unit CO/ROIC/RSO must enforce and supervise all requirements at all times during the training event. **ROIC, RSO, assigned duty corpsman, and safety vehicle driver WILL NOT have any other duties/assignments, participate in the training event, or fire any weapon/ammunition during the time period they are assigned duties as the ROIC/RSO/Duty Corpsman/Safety vehicle Driver.**

(7) **The Safety Vehicle/Driver and properly equipped Corpsman SHALL be at a safe distance from the high-risk activity so they can respond as needed or required.**

b. Checking Out/Checking-In Ranges

(1) Using units can check out scheduled ranges up to eight (8) working days in advance (Monday-Thursday 0730-1630 and Fridays 0730-1530 for Special Events) to the date of use/scheduled event. **The ROIC can check out RTAs or facilities from Range Control and must check out no later than 1200 the day prior to the scheduled event (i.e. Thursday for ranges on a Saturday, Sunday, Monday, and Holidays that fall on a Tuesday). Ranges not checked out by 1200 are cancelled and recorded**

**as a unit no-show.** Friday will be used to check out special events (TACPs/Large Exercises) and write the weekend and holiday schedules/messages if prearranged with the Range Control Scheduling Section. Those RTAs and training facilities not checked out Monday-Thursday can be checked out on a Friday if coordinated by unit's operation officer and approved by the RCOO prior to 1200 on Thursday.

(2) Prior to checking out any RTA or facility, the ROICs and RSOs must have attended the Range Control Range safety brief, have a current, signed Camp Lejeune Range Control Safety Card (ROIC/RSO Card) in their possession, and be on the unit's current Command Certification Letter.

(3) The ROIC/RSOs of all CAS/SIMCAS must conduct a Face-to-Face with BLACKBURN right after signing for the event.

(4) Grenade ranges require special coordination due to the requirement of having an EOD response team standing by to take immediate action with UXO/dud grenades. See the Range Cards for additional information on F-6, K-510, and MAC-3.

(5) The individual ROIC who checked out the range will be the only one who can check it back in. The individual who checked out the range will be responsible for all equipment and items signed out and must return all Range Control safety equipment **within 24 hours**. ROIC/RSO is requested to submit a range after action report concerning the quality, police, and maintenance condition of the range, via Interactive Customer Evaluation or ICE for each range used within 24 hours of completion of the training event. This will assist Range Control/Range Maintenance in the identifying maintenance problems or any enhancements as early as possible so they can be resolved.

## Chapter 4

### Airspace, Aircraft, UAS Operations, and Facilities

#### 1. General

a. This Chapter describes restricted airspace, aircraft operation procedures, UAS operations, and other facilities controlled by Camp Lejeune, and sets forth all instructions, policies concerning their use in conjunction with the Camp Lejeune RTAs and training facilities. Camp Lejeune restricted airspace is controlled to safely permit multiple uses with the least interference. All firing and aircraft operations must conform to airspace regulations contained in this section and all other Federal Aviation Administration (FAA) regulations.

b. A major portion of Camp Lejeune lies within airspace designated by the FAA as Restricted Area (Airspace) R-5306D, Restricted Area (Airspace) R-5306E, Restricted Area (Airspace) R-5303 A/B/C, and Restricted Area (Airspace) R-5304 A/B/C (Figure 4-1). Military aircraft operating within the restricted airspace will squawk 4000 unless already assigned a discreet transponder code by Air Traffic Control (ATC). A Letter of Procedure (dated 24 February 2010) signed by MCIEAST-MCB CAMLEJ, MCAS Cherry Point, Regional Airspace Coordinator, and DOT/FAA (MCAS Cherry Point) and a Letter of Agreement (dated 15 October 2007) signed by MCIEAST-MCB CAMLEJ, MCAS New River, Regional Airspace Coordinator, and Department of Transportation/FAA (MCAS Cherry Point) further divides Restricted Area (Airspace) R-5303 and Restricted Area (Airspace) R-5304 by identifying sub areas; SR-6, SR-7, SR-8, SR-9, and SR-10 for real-time joint use and scheduling.

#### 2. Special Use Airspace

a. SUA. SUA is airspace of defined dimensions wherein activities must be confined because of their nature, or wherein limitations may be imposed upon aircraft operations that are not a part of those activities.

b. Restricted Area. Restricted areas contain airspace identified by an area on the surface of the earth within which the flight of aircraft, while not wholly prohibited, is subject to restrictions. Restricted areas denote the existence of unusual, often invisible, hazards to aircraft such as artillery firing, aerial gunnery, or guided missiles.

c. Using Agency. The using agency is the military unit or other organization whose activity established the requirement for the SUA. The using agency is responsible for ensuring that:

- (1) The airspace is used only for its designated purpose.
- (2) Proper scheduling procedures are established and utilized.
- (3) The controlling agency is kept informed of changes in scheduled activity, to include the completion of daily activities.

(4) A POC is made available to enable the controlling agency to verify schedules and coordinate access for emergencies, weather diversions, etc.

d. Controlling Agency. The controlling agency is the ATC facility that exercises control of the airspace when an SUA area is not activated. A military ATC facility may be assigned as the controlling agency, subject to the concurrence of the service area office and the concerned Air Route Traffic Control Center. A controlling agency shall be designated for each joint-use SUA area.

e. Restricted Areas

(1) Restricted Area (Airspace) R-5306D. Includes airspace from surface to 17,999 ft. Mean Sea Level (MSL) within the area from Latitude (LAT) 34 Degrees 44'51"N, Longitude (Long) 77 Degrees 14'39"W (Grid 18S TU 9457 4734); to LAT 34 Degrees 34'31"N, Long 77 Degrees 08'59"W (Grid 18S UD 0281 2804); to Lat 34 Degrees 30'21"N, Long 77 Degrees 15'49"W (Grid 18S TD 9219 2057); to Lat 34 Degrees 33'01"N, Long 77 Degrees 18'59"W (Grid 18S TD 8746 2561); to Lat 34 Degrees 36'06"N, Long 77 Degrees 26'07"W (Grid 18S TD 7668 3157); to Lat 34 Degrees 40'01"N, Long 77 Degrees 21'59"W (Grid 18S TD 8317 3866); 18S TD 8492 3708) to the start point. MCAS Cherry Point Approach Control is the Controlling Agency and MCIEAST-MCB CAMLEJ is the Using Agency.

(2) Restricted Area (Airspace) R-5306E. Includes airspace from surface to 17,999 ft. MSL within the area from Lat 34 Degrees 40'21"N, Long 77 Degrees 21'11"W (Grid 18S TD 8288 3928); to Lat 34 Degrees 40'01"N, Long 77 Degrees 21'59"W (Grid 18S TD 8317 3866); to Lat 34 Degrees 36'06"N, Long 77 Degrees 26'07"W (Grid 18S TD 7668 3157); to Lat 34 Degrees 38'13"N, Long 77 Degrees 25'59"W (Grid 18S TD 7698 3548) to the start point. MCAS Cherry Point Approach Control is the Controlling Agency and MCIEAST-MCB CAMLEJ is the Using Agency.

(3) Restricted Area (Airspace) R-5306D Fixed-Wing Procedural Line. Subdivides Restricted Area (Airspace) R-5306D and includes all of Restricted Area (Airspace) R-5306E below 3000 ft. MSL to allow MCAS New River to conduct approaches and departures to/from Runways 19 and 23 vice only Runway 23 during hazardous fixed-wing operations within Restricted Area (Airspace) R-5306D/E. The Procedural Line is defined as a line running NE and SW from Lat 34 degrees 39'11"N, Long 077 degrees 20'49"W (Grid 18S TD 8492 3708) to Lat 34 Degrees 63'06" N, Long 077 Degrees 26'07"W (Grid 18S TD 7668 3157). When the

Procedural Line is put into effect by BLACKBURN, fixed-wing hazardous traffic shall remain south of the line when flying below 3000 ft. MSL. Moving the three mile buffer to the Procedural Line below 3000 ft. MSL allows approaches to MCAS New River. Above 3000 ft. MSL, the three mile buffer is from the border of Restricted Area (Airspace) R-5306E as before.

(4) Restricted Area (Airspace) R-5303 (GSRA). Designated Altitudes: Restricted Area (Airspace) R-5303A -- Surface to 6999 ft. MSL; Restricted Area (Airspace) R-5303B -- 7000 to 9,999 ft. MSL; Restricted Area (Airspace) R-5303C -- 10,000 to 17,999 ft. MSL. Restricted Area (Airspace) R-5303A excludes the Airspace 1,500 ft. AGL and below within a three nm radius of Sky Manor Airport. The lowest sub-area, Restricted Area (Airspace) R-5303A, is the most frequently used area. Time of designation 0600-1800 Monday-Friday; other times (including any use of Restricted Area (Airspace) R-5303B/C) by NOTAM at least 24 hours in advance. Boundaries: Lat 34 Degrees 41'40"N, Long 77 Degrees 33'09"W (Grid 18S TD 6619 4212); to Lat 34 Degrees 39'16"N, Long 77 Degrees 28'31"W (Grid 18S TD 7316 3751); to Lat 34 Degrees 36'51"N, Long 77 Degrees 29'01"W (Grid 18S TD 7228 3306); to Lat 34 Degrees 36'13"N, Long 77 Degrees 31'51"W (Grid 18S TD 6792 3199); to Lat 34 Degrees 37'03"N, Long 77 Degrees 35'25"W (Grid 18S TD 6250 3368); to Lat 34 Degrees 38'49"N, Long 77 Degrees 37'31"W (Grid 18S TD 5938 3702) to the start point. Washington ARTCC is controlling agency of Restricted Area (Airspace) R-5303C, MCAS Cherry Point Approach Control is the Controlling Agency for Restricted Area (Airspace) R-5303A and B, and MCIEAST-MCB CAMLEJ is the Using Agency for Restricted Area (Airspace) R-5303A, B, and C.

(5) Restricted Area (Airspace) R-5304 (GSRA). Designated Altitudes: Restricted Area (Airspace) R-5304A -- Surface to 6999 ft. MSL; Restricted Area (Airspace) R-5304B -- 7000 to 9,999 ft. MSL; Restricted Area (Airspace) R-5304C -- 10,000 to 17,999 ft. MSL. Restricted Area (Airspace) R-5304A excludes the airspace 1,500 ft. AGL and below within a three nm radius of Holly Ridge Airport. The lowest sub-area, Restricted Area (Airspace) R-5304A, is the most frequently used area. Time of designation 0600-1800, Monday- Friday; other times (including any use of Restricted Area (Airspace) R-5304B/C) by NOTAM at least 24 hours in advance. Boundaries: Lat 34 Degrees 37'03"N, Long 77 Degrees 35'25"W (Grid 18S TD 6250 3368); to Lat 34 Degrees 36'13"N, Long 77 Degrees 31'51"W (Grid 18S TD 6792 3199); to Lat 34 Degrees 36'51"N, Long 77 Degrees 29'01"W (Grid 18S TD 7228 3306); to Lat 34 Degrees 32'16"N, Long 77 Degrees 30'13"W (Grid 7024 24633); to Lat 34 Degrees 29'43"N, Long 77 Degrees 35'15"W (Grid 18S TD 6548 20003); to Lat 34 Degrees 32'42"N, Long 77 Degrees 34'54"W (Grid 18S TD 6309 2561) to the start point. Washington ARTCC is Controlling Agency of Restricted Area (Airspace) R-5304C. MCAS Cherry Point Approach Control is the Controlling Agency of Restricted Area (Airspace) R-5304A and B, and MCIEAST-MCB CAMLEJ is the Using Agency for Restricted Area (Airspace) R-5304A, B, and C.

(6) The restricted areas shall be managed on a real-time basis to minimize impact on non-participating aircraft. When non-participating aircraft on V-139 are unable to transit above the restricted area altitudes in use, range activity shall either be capped or a cease-fire imposed to accommodate the aircraft on the airway. On occasion, ATC may vector non-participating aircraft off the airway to the east of the range through Restricted Area (Airspace) R-5306D and Restricted Area (Airspace) R-5306E, which shall be deactivated for that purpose.

f. Warning Area W-122. The portion of Warning Area W-122 of concern to Camp Lejeune is the airspace over the Atlantic Ocean 30 miles in radius from a point three miles at sea off Onslow Beach Bridge (Areas 15 and 15A). Warning Area W-122 is controlled by the FACSFAC VACAPES.

g. New River Class D Area. MCAS New River controls this airspace, which extends upward from the surface to and including 2500 ft. MSL and within a five nm radius of MCAS New River.

### 3. General Aircraft Operations

a. Fixed-wing operators utilizing Restricted Area (Airspace) R-5306D/E are also required to schedule Restricted Area (Airspace) R-5306C and Hatteras Foxtrot Memorandum of Agreement (MOA) with Cherry Point Central Scheduling Office at (252) 466-4040/4041 (DSN 582). Same-day scheduling of Restricted Area (Airspace) R-5306C and Hatteras Foxtrot MOA will be through BIG ROCK Range Control at (252) 466-2936/5127, (DSN 582). Arrival and departure notifications to/from Restricted Area (Airspace) R-5306C, Hatteras Foxtrot MOA are required with BIG ROCK Range Control on UHF 323.775 or VHF 141.95. Fixed-wing operators utilizing W-122 airspace are required to schedule with FASFAC VACAPES, (757) 433-1219/1286. Arrival and departure notifications to/from AIR 15 are required with Cherry Point Approach Control via direct communications on UHF 268.7 or VHF 124.1. The resulting block Restricted Area (Airspace) R-5306C, Restricted Area (Airspace) R-5306D/E, Hatteras Foxtrot MOA, and AIR-15 provides the maneuver area needed to contain and protect participating aircraft from non-participants during fixed-wing operations. When fixed-wing aircraft cannot maintain flight within a scheduled SUA and spill into an adjacent SUA or out of assigned SUA a "Whiskey Alert" call will be reported immediately to the agency responsible for the affected airspace.

b. This Order provides command, control, and maneuver protocols for operations inside SUA. Terms such as "controlling agency", "controller" and/or "terminal controller" are used in the tactical sense and are not to be confused with 14 CFR Part 73 or Part 91 terminologies. All 14 CFR responsibilities remain intact.

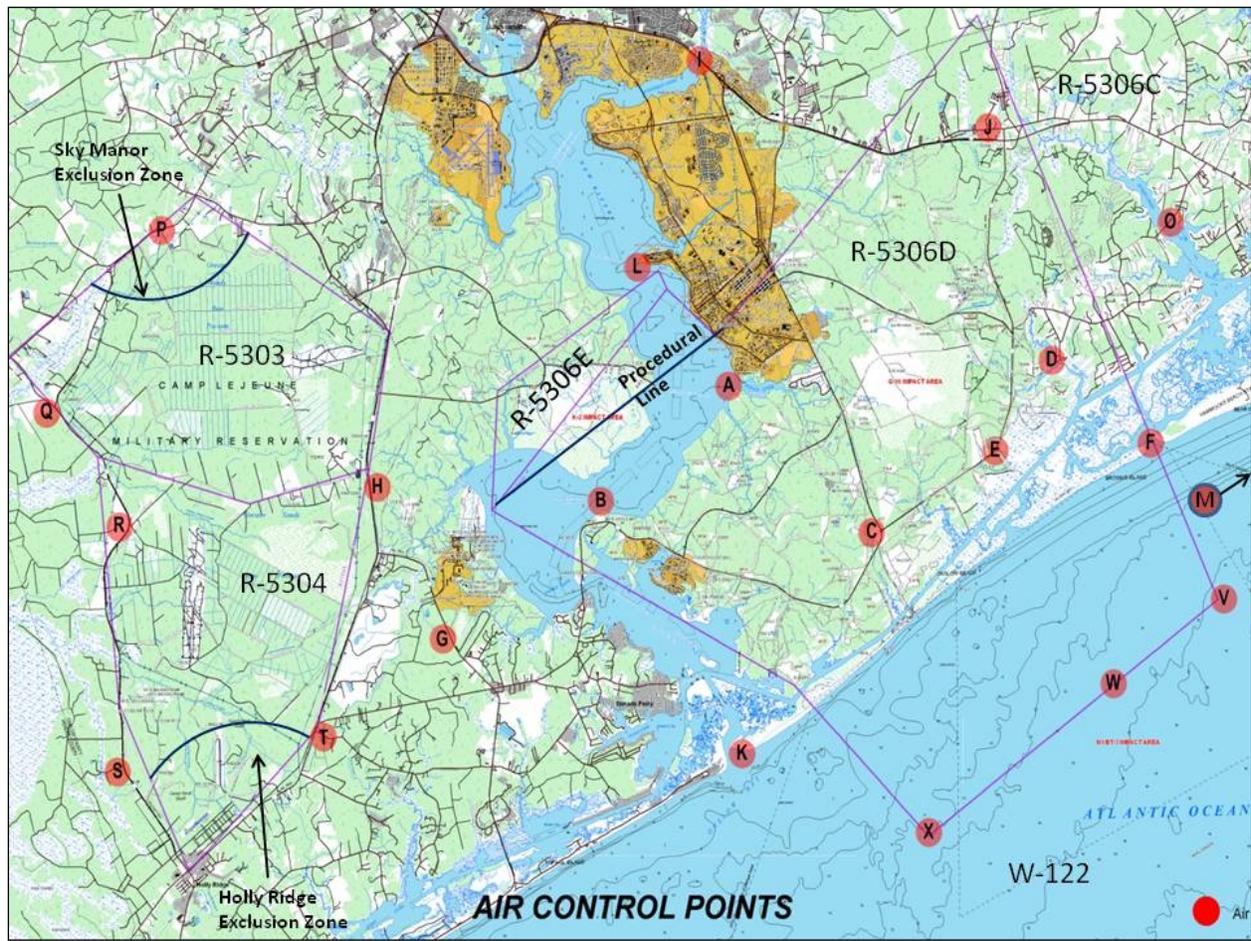


Figure 4-1.--SUA and Air Control Points

POINT	GRID WGS 84	LAT	LONG	AIRSPACE	LOCATION
Alpha	18S TD 850355	34 deg 38'17"	77 deg 20'20"	R5306D	Weil Point
Bravo	18S TD 810320	34 deg 36'07"	77 deg 23'29"	R5306D	Gillette Point
Charlie	18S TD 907305	34 deg 35'45"	77 deg 16'56"	R5306D	Intersection of Sneads Ferry Rd and Highway 172
Delta	18S TD 970356	34 deg 38'45"	77 deg 12'54"	R5306D	Bear Creek at Willis Landing
Echo	18S TD 947328	34 deg 37'09"	77 deg 14'14"	R5306D	Highway 172 at Range G-6 CBC
Foxtrot	18S TD 995332	34 deg 37'17"	77 deg 10'34"	R5306D	Bear Inlet
Golf	18S TD 755267	34 deg 33'46"	77 deg 27'01"	Hatteras F MOA	Route 210

POINT	GRID WGS 84	LAT	LONG	AIRSPACE	LOCATION
India	18S TD 845461	34 deg 44'03"	77 deg 21'13"		Route 24 Bridge
Juliet	18S TD 935435	34 deg 42'43"	77 deg 15'13"	R5306D	Hubert Fire Tower
Hotel	18S TD 723331	34 deg 36'39"	77 deg 29'00"		Dixon Fire Tower
Kilo	18S TD 854230	34 deg 31'48"	77 deg 20'13"	Hatteras F MOA	New River Inlet
Lima	18S TD 822345	34 deg 40'24"	77 deg 22'41"		Hadnot Point (Old Hospital Point)
Mike <sup>1</sup>	18S UD 060350	34 deg 38'26"	77 deg 06'40"	R5306C	Bogue Inlet
November <sup>1</sup>	18S UD 015486	34 deg 45'43"	77 deg 10'08"	R5306C	Silverdale RR Bridge
Oscar <sup>1</sup>	18S UD 014405	34 deg 41'11"	77 deg 10' 05"	R5306C	Queens Creek Bridge
Papa	18S TD 650410	34 deg 41'05"	77 deg 34'28"	R5303A/B/C	Power line road Junction
Quebec	18S TD 610353	34 deg 41'05"	77 deg 36'25"	R5303A/B/C	Road Junction
Romeo	18S TD 636313	34 deg 36'15"	77 deg 34'39"	R5303A/B/C	Road Bend
Sierra	18S TD 632234	34 deg 31'40"	77 deg 34'44"	R5303A/B/C	Road Bend/ Intersection
Tango	18S TD 703248	34 deg 32'21"	77 deg 30'12"	R5303A/B/C	Road intersection of Hwys 17 and 172
Victor	18S UD 028280	34 deg 34'31"	77 deg 08'59"	R5306D	Eastern most corner of R5306D at sea
Whiskey	18S TD 987252	34 deg 32'56"	77 deg 11'38"	R5306D	N-1/BT-3
X-Ray	18S TD 922206	34 deg 30'21"	77 deg 15'49"	R5306D	Southern most corner of R5306D at sea

Table 4-1--Air Control Points

NOTE <sup>1</sup>: Use at or above 1200 feet. MSL requires advance coordination with BIG ROCK Range Control to activate Restricted Area (Airspace) R-5306C and the Hatteras Foxtrot MOA. Additional Control Points, as required by the Direct Air Support Center (DASC) for a specific exercise, shall be published in the Exercise Air Ops Plan and Pilot-Controller Handbook after coordination with the RCO.

c. Prior to entering the Restricted Area (Airspace) R-5306D, Restricted Area (Airspace) R-5306E, Restricted Area (Airspace) R-5303 A/B/C, or Restricted Area (Airspace) R-5304 A/B/C area, aircraft shall contact BLACKBURN or appropriate tactical agency (CHIEFTAIN) on the primary air control UHF frequency (233.8), alternate air/civilian aircraft VHF frequency (119.5), or the Range Control FM net (34.70)

for authorization to enter the airspace. Positive two-way communications with BLACKBURN is required at all times for all aircraft. Aircraft operations in the SUA are on a VFR concurrent use basis. Extreme vigilance shall be used as numerous military aircraft use these areas concurrently. Once in the SUA, the pilot is responsible for the conduct of the mission, squawking the assigned transponder code, monitoring the assigned frequency, and remaining within the approved area of operation. See and avoid other aircraft. "BIG ROCK" (Cherry Point) manages aircraft operations in R-5306C and Hatteras Foxtrot MOA. During FW operations in support of TACP/JTAC /CAS G-10 operations and transiting/holding/operating in the Restricted Area (Airspace) R-5306C and Hatteras Foxtrot MOA, aircraft are required to check in/out of Restricted Area (Airspace) R-5306C /Hatteras Foxtrot MOA with BIG ROCK (Cherry Point) Range Control. After FW aircraft check in, BIG ROCK will switch aircraft to the appropriate frequency as identified in the SPINS. BIG ROCK will continue to provide SUA boundary containment/safety-of-flight using (pre-briefed) CHIEFTAIN/BLACKBURN/JTAC TAD frequencies and UHF Guard. BIG ROCK will make attempts to coordinate, via landline, with CHIEFTAIN/BLACKBURN/JTAC whenever safety-of-flight and/or SUA containment transmissions are forthcoming. Radio discipline and brevity will be maintained at all times if transmissions are required by BIG ROCK on CHIEFTAIN/BLACKBURN/JTAC TAD/Guard frequencies. Draft SPINS must be submitted via email (SPINS attached) to Camp Lejeune Range Control and "BIG ROCK" (Cherry Point) Range Control ten (10) working days prior to the TACP for comments and approval. Final SPINS and AIR FLOW must be submitted to Camp Lejeune Range Control and "BIG ROCK" (Cherry Point) Range Control via email attachment prior to the BLACKBURN and unit TACP Face-to-Face brief.

d. During TACP exercises, when CHIEFTAIN is co-located with the EWTGLANT Air Officer at OP-2/OP-3/OP-5/OP-14, participating aircraft will be directed after check-in to switch from CHIEFTAIN'S frequency to a Tactical Air Delivery (TAD) frequency. BIG ROCK and CHIEFTAIN (via the EWTGLANT Air Officer) will also monitor the two TAD frequencies and provide time-critical safety of flight advisories directly over the TAD net or Guard as required. This positive two-way communication alleviates the requirement for participating aircraft to directly monitor Range Control frequency during TACP exercises.

e. During designated evolutions, the DASC will perform the BLACKBURN function along with the doctrinal DASC role. DASC will utilize the call sign CHIEFTAIN and utilize the same frequencies as those assigned to BLACKBURN. If the DASC cannot maintain control of the assigned airspace due to communications problems or any other reason, BLACKBURN will immediately assume all control functions. BLACKBURN retains overarching control of assigned airspace regardless of the DASC assuming this role. For the purpose of this chapter, BLACKBURN will be utilized to indicate the agency performing range control functions within assigned RTA.

f. Flights over MCIEAST-MCB CAMLEJ require the below visual conditions (unless unit minimums are more restrictive):

	<u>DAY</u>	<u>NIGHT</u>
Helo	500 ft/1 mile	1000 ft/3 miles
Tiltrotor (<150 KIAS)	500 ft/1 mile	1000 ft/3 miles
Tiltrotor (>150 KIAS)	1000 ft/3 mile	1000 ft/3 miles
FW	2000 ft/5 miles	2000 ft/5 miles
FW (with Ordnance at night)		3000 ft/5 miles
UAS (Group 1)	500 ft/1 mile	1000 ft/3 miles
UAS (Group 2 and larger)	2000 ft/5 miles	2000 ft/5 miles

g. Aircraft shall be advised of and deconflicted with GPs, live ranges, and indirect fire Gun Target Lines (GTLs). To safely allow concurrent air operations and indirect firing, aircraft shall not approach **CLOSER THAN 1000 meters from GTLs**. Pilots must be familiar with all Artillery GPs and MPs.

h. Minimum altitude for aircraft flying over all civilian residential areas, to include mainside housing areas is, 1000 ft. AGL.

i. Aircraft will not fly directly over the ASP area, lower than 1000 ft. MSL. The ASP is located just west of the G-10 Impact Area at grid 880-355.

j. All aircraft will maintain a five nm radius (unless otherwise NOTAMed) from parachute operations at all times.

k. Over-flights of the G-10, K-2, and N-1/BT-3 Impact areas are prohibited during live firing operations unless the aircraft is above the minimum altitude prescribed, involved in the exercise, and directed by BLACKBURN/CHIEFTAIN.

l. Fixed-wing aircraft (all types) are not authorized to enter the Restricted Area (Airspace) R-5303 A/B/C and Restricted Area (Airspace) R-5304 A/B/C Airspace (GSRA) when the airspace is activated. When the airspace defined by Restricted Area (Airspace) R-5303 A/B/C or Restricted Area (Airspace) R-5304 A/B/C Airspace (GSRA) is not activated, an ATC agency is the appropriate service agency and aircrews will be instructed to contact ATC. If an aircraft calls BLACKBURN for routing when these areas are not activated, BLACKBURN will collect usage data and coordinate a switch to ATC. When departing the area aircraft will contact BLACKBURN with range usage data. After coordination with ATC, ATC may desire the aircraft to stay with BLACKBURN.

m. A NOTAM is required for both fixed and rotary-wing PARAOPs in the GSRA. Timely scheduling through RFMSS no later than five working days prior to the first day of the month the event is scheduled in will allow Range Control to include the event on its monthly NOTAM request to MCAS Cherry Point. If the event is scheduled less than five days prior to the end of the month, it is the unit's responsibility to request a NOTAM within the NET 72 hours and NLT 24 hours.

n. SUAs Restricted Area (Airspace) R-5303/5304 may be subdivided and de-activated to support fixed-wing operations and aircraft recovery efforts to MCAS New River.

o. When Restricted Area (Airspace) R-5306D/E SUA(s) are under BLACKBURN control, no more than one section (two aircraft) of fixed-wing, high-performance jet aircraft, CAS or Simulated CAS (SIMCAS) will be allowed into the restricted airspace(s) at any one time. When a DASC (CHIEFTAIN) has control of the airspace, quantities of aircraft are limited by DASC capabilities.

p. Figure 4-1 and Table 4-1 display the air control points used by BLACKBURN for aircraft utilizing Camp Lejeune ranges and impact areas. Rotary-wing aircraft may request routing between air control points using the terms "RED LINE" for roads, "BLUE LINE" for the New River and AIWW, and "FEET WET" when flying over the Onslow Bay /Atlantic Ocean. BLACKBURN will brief "HOT" ranges within 500 meters either side of the requested route

q. SIMCAS is authorized in the Restricted Area (Airspace) R-5306D and Restricted Area (Airspace) R-5306E for fixed-wing aircraft and all restricted airspace for helicopter and tiltrotor Aircraft. Aircraft conducting SIMCAS in support of the ground units shall maintain positive two-way communications with the terminal controller who, in turn, will have positive two-way communications with BLACKBURN or the tactical agency. SIMCAS aircraft shall adhere to the boundaries established to integrate SIMCAS simultaneous with other air operations - refer to Annex N (Offensive Air Support Appendix) of the Operation Plan and the Pilot-Controller Handbook for each specific exercise. Aircraft involved in SIMCAS can have inert/captive carrying ordnance items on the aircraft.

r. When departing Camp Lejeune SUA, aircraft must contact BLACKBURN or the tactical agency to check out.

s. Aircraft malfunctions, mishaps, emergencies, near misses, or precautionary landings shall be reported to BLACKBURN when it is safe to do so (aviate, navigate, and communicate). The RCO or RCOO shall be notified immediately and an incident report and other appropriate reports such as HAZMAT spill will be created.

4. Coordination and Control

a. Aircraft and Terminal Controllers

(1) Aircraft participating in live firing operations, bombing, CAS (live or simulated), or combined air-ground exercises require positive control by a FAC, FAC(A), or JTAC. FAC/JTAC and DZ/LZ control officers have the same responsibilities as an ROIC/RSO of firing units. SIMCAS only requires one (1) person (FAC/JTAC present. Chapters 2, 3, and information in Appendix I paragraphs discussing ROIC and RSO of this Order apply.

(2) For units involved in training exercises (e.g. COMPTUEX, CERTEX, JTFEX, Major Joint or Combined Exercises), the unit Air Officer/FAC must meet with Range Control at least 10 days prior to the exercise to discuss air operations, use of FAC/JTAC, FAC(A)s, DASC or the tactical agency, and determine and resolve conflicts. Unit must provide Range Control/BLACKBURN a copy of the Air Tasking Order/SPINS 10 working days in advance of the exercise to verify scheduled events. Unit must provide updates to the Air Tasking Order/SPINS as required.

(3) FAC/JTAC are required to conduct a Face-to-Face brief with Range Control and BLACKBURN, (Building 54) before the scheduled event. FAC(A)s will receive the Range Safety Brief upon entering MCIEAST-MCB CAMLEJ restricted airspaces.

(4) FAC/JTAC

(a) Any air operation involving aircraft live firing or bombing CAS or combined air/ground exercises requires positive control of aircraft by a FAC/JTAC. The FAC/JTAC may be on the ground or a FAC(A). The term FAC (ground or airborne) is used synonymously with the terms JTAC and ROIC of firing regarding these safety regulations for the rest of this publication.

(b) FAC and tactical agency (CHIEFTAIN) are required to report to the BLACKBURN for the range Face-to-Face checkout briefing.

(c) The FAC will notify BLACKBURN immediately after the last aircraft has cleared the area so the temporary fire suspension may be lifted for ground units, if in effect.

(d) The FAC (if employed on the ground), will be positioned to see the aircraft and the target.

(5) Range Control Air Requirements for FAC(A)

(a) These procedures are only for squadron specific CAS and FAC(A) training when no ground units are involved. Working CAS or SIMCAS with ground units will require standard ROIC, RSO, FAC, JTAC, DASC, G-10 Helo, G-10 Fixed, and G-10 Helo/Fixed procedures through the ground unit.

(b) Scheduling. Squadrons submit request for the range airspace (N-1/BT-3, G-10 Helo, G-10 Fixed, G-10 Helo/Fixed, G-10 Laser), OP, and OP laser in RFMSS up to 90 days prior but no later than two working days (48 hours) prior to the event. TAs must be scheduled and approved in RFMSS before submitting an e-mail SRR for use of a FAC(A).

(c) Submit SRR (Appendix E of this Order) e-mail to RSS or call for assistance at (910) 451-1240.

(d) Lead Instructor Pilot (FAC and ROIC/RSO-qualified) for flight will be ROIC. The RSO (ROIC/RSO qualified) can be a squadron pilot. FAC-qualified is desired but not required. RSO can be E-6 or above if JTAC-qualified. RSO will be on the ground in an OP and have communications with BLACKBURN and the flight. RSO maintains target clearance. If lasers are used, the Range Laser Safety Officer (RLSO) qualified person can be on the ground or in the air and be ROIC or RSO.

(e) ROIC must attend a Face-to-Face brief with BLACKBURN the day prior at Range Control. ROIC will give a copy of the SPINS to BLACKBURN/Range Control. The SPINS must have ordnance type/DODIC/NALC.

(f) Execution. RSO signs for ranges/OP and receives Face-to-Face brief with BLACKBURN. RSO checks in from OP with BLACKBURN via normal procedures and receives a HOT range brief. Flight checks in with BLACKBURN and receives a HOT range brief and confirms number of aircraft and ordnance. RSO has communications with BLACKBURN and the flight (Squadron Common). Flight conducts range sweep (over flight) of target area and Holding Areas (HAS)/Battle Positions (BPs) being used. RSO and ROIC receive clearance from BLACKBURN to go "HOT". Flight conducts training on squadron common tactical frequency and monitors BLACKBURN throughout training in the event of check fire, emergency, etc.

(g) Flight lead Instructor Pilot (ROIC) and RSO on the ground are responsible for the safe conduct of fires on the range, adherence to range SDZs/WDZs, and this Order.

(h) Upon completion of the training event, the flight will check out with BLACKBURN. ROIC or RSO will report ordnance expended by DODIC/NALC, type and number of aircraft, number of personnel trained, and request to go "COLD". RSO will coordinate with BLACKBURN for a range inspection of the OP.

(6) All aircraft shall contact the BLACKBURN or the tactical agency to receive a range brief and authorization to enter the airspace. BLACKBURN shall direct aircraft to switch to the FAC/JTAC upon entering the restricted airspace. If communications cannot be established, the pilot shall immediately contact BLACKBURN for assistance and further instructions.

(7) Minimum altitude for fixed-wing operations inside the restricted area is 3000 ft. AGL (coordinating altitude). Fixed-wing operations below 3000 ft. AGL coordinating altitude (i.e., strafing runs/low-altitude ingress) are authorized when deconflicted from rotary-wing operations with lateral and altitude separation. Helicopter and tiltrotor aircraft shall not exceed 2000 ft. AGL when fixed-wing aircraft are operating in the Restricted Area (Airspace) R-5306D/E. Minimum coordinating altitude for rotary-wing when fixed-wing is on station is 500 ft. AGL. Fixed-wing aircraft shall not fly over occupied BPs and HAS. The minimum altitude for fixed-wing aircraft from Initial Point (IP) to the Pop-up Point (is 1000 ft. ALG outside the Installation boundary and 700 ft. AGL within the boundary.

Control Point	Altitude Minimum (AGL)	ATK Heading	Offset
GP-20	700 ft.	340-070 degrees	Either
Bravo	700 ft.; 1000 ft. off-base	030-100 degrees	Either
November	1200 ft.	150-270 degrees	Either
Oscar	1200 ft.	150-270 degrees	Either
Mike	1200 ft.	150-300 degrees	Either
Foxtrot	1000 ft.	206-360 degrees	Either

Table 4-2--IPs for G-10 Impact Area

Control Point	Altitude Minimum (AGL)	ATK Heading	Offset
GP-20	700 ft.	000-120 degrees	Either
Bravo	700 ft.; 1000 ft. off-base	180-255 degrees	Either
November	1200 ft.	180-255 degrees	Either
Oscar	1200 ft.	180-255 degrees	Either
Mike	1200 ft.	215-255 degrees	Either

Table 4-3--IPs FOR N-1/BT-3 Impact Area

Control Point	Altitude Minimum (AGL)	ATK Heading	Offset
GP-20	700 ft.	260-330 degrees	Either
Charlie	700 ft.	260-330 degrees	Either

Table 4-4--IPs for K-2 Impact Area

NOTE: K-2 pull-offs are left; avoid over flight of the L-5 Range, Rifle Range/EOTG/MARSOC ranges.

(8) CAS missions shall not fly over the Cantonment Area, Industrial Area (Mainside), MCIEAST-MCB CAMLEJ ASP, or base housing areas. Aircraft must maintain a minimum of 1,000 ft. AGL if over flying any civilian housing areas enroute to or exiting the Restricted Area (Airspace) R-5303, Restricted Area (Airspace) R-5304 (rotary-wing CAS), and Restricted Area (Airspace) R-5306D/E airspaces.

(9) The charts above for the G-10, N-1/BT-3, and K-2 impact areas are the approved attack headings and altitudes from control points (all headings are magnetic).

(10) Appendix B offers further special instructions for CAS into impact areas N-1/BT-3, K-2, and G-10. Appendix B describes Helicopter/tiltrotor BPs and HAS for these impact areas. Appendix B contains information on the use of the UCAS Facility. Aerial gunnery may be conducted at SR-7, SR-9, and SR-10, also see the applicable Range Cards.

(11) Weather restrictions for CAS missions into authorized impact areas are in accordance with this Order.

(12) CAS and SIMCAS missions in any TA or range shall remain clear of adjacent ranges or impact areas. **When fixed-wing aircraft cannot maintain flight within a scheduled SUA and spill into an adjacent SUA a "Whiskey Alert" call will be reported immediately to the controlling agency.**

#### 5. Aircraft Mishaps

a. Units shall notify Range Control in the event of any aircraft MISHAPS in RTAs.

b. The following information shall be reported, if available:

(1) Location;

(2) Type of Aircraft;

(3)\_Personnel Involved;

(4) Name, grade, organization, and present location of caller and telephone number; and

c. Units or personnel involved in emergency rescue operations must ensure live-fire in that area has ceased before entering the mishap site area.

d. Range Control will call "CEASE-FIRE" on all RTAs that affect the mishap site. Clearance from Range Control will then be given for the rescue party to access the mishap site area.

e. Firing will not resume until the rescue has been completed and all personnel and equipment have been accounted for.

f. Tactical Airspace Control Agencies

(1) The DASC is the principal tactical agency responsible for the direction of air operations directly supporting ground forces. The role of the DASC is to provide the means to process immediate air support requests, coordinate aircraft employment with other supporting arms, manage terminal control assets supporting ground combat and combat service support forces, and control assigned aircraft and itinerant aircraft transiting through its area of responsibility (MCWP 3-25.5 Direct Air Support Center Handbook). The DASC ROIC/RSO will have the same responsibilities as a ROIC/RSO of a firing unit. The DASC must have a minimum of two DASC trained ROIC/RSO qualified personnel on duty per this Order; a second set of eyes and ears to prevent mistakes. Training/familiarization of new DASC personnel with BLACKBURN is encouraged and can be arranged by contacting Range Control.

(2) During selected training exercises, the DASC is normally the primary tactical agency responsible for the control and coordination of the restricted airspace. Other tactical agencies such as Air Support Elements, Tactical Air Control Squadrons, or Airborne Airspace Control Platforms (E2C Hawkeye) may be authorized to control and coordinate the restricted airspace.

(3) The DASC (or other approved tactical agency) will maintain positive two-way communications with BLACKBURN by radio on the range safety net (34.70). Two radios are required: primary and backup. If the tactical agency is unable to maintain two-way communications with BLACKBURN, the tactical agency will relinquish control and instruct

all aircraft to contact BLACKBURN on primary air control UHF frequency (233.8), alternate air control/civilian aircraft VHF frequency (119.5), or the Range Control net (34.70 FM).

(4) When the DASC (or other approved tactical agency) has control of the restricted airspace, it shall exercise procedural control over all aircraft within the restricted airspace. Other control agencies may exercise positive or procedural control based on controlling capabilities. The following procedures apply:

(a) The tactical agency has the same responsibilities as BLACKBURN for airspace control and coordination.

(b) When the tactical agency has control of the restricted airspace, multiple fixed-wing sections are authorized, as long as positive two-way communication is established with all participating flights on the "Radio In and Out" frequency assigned for the exercise.

(c) Prior to entering the restricted airspace, all aircraft shall contact the tactical agency to receive a range safety brief and authorization to enter the airspace. All aircraft will check-in with call sign, number of aircraft, position, requested routing and destination. Exercise aircraft will add their mission event number with any exceptions.

(d) The tactical agency shall switch the aircraft to their terminal controller, at which time the provisions of paragraph 3. Coordination and Control apply.

(e) CAS aircraft operating over any impact area on the installation must have positive two-way communication with the tactical controller who, in turn, must have positive two-way communications with the tactical agency on a BLACKBURN frequency.

(f) Upon mission completion, when released from the terminal controller, the pilot shall contact the tactical agency before exiting the restricted airspace. The FAC/JTAC conducting the event will provide the number of personnel trained and number of rounds/rockets/missiles/bombs expended by DODIC. The FAC/JTAC must obtain this information from the pilots before the aircraft departs.

(g) Helicopter and tiltrotor aircraft will contact the tactical agency as soon as possible after lifting from each LZ.

(h) Additional IPs, altitudes, attack headings, and offsets may be approved by Range Control/BLACKBURN and delineated in appropriate Exercise Operations Plans/Pilot Controller Handbook.

(i) Types I, II, and III CAS events are authorized in this facility, per the current JCAS Manual. All restrictions must be read back to terminal controller by aircrew from each attacking aircraft. All attacks must comply with individual target set restrictions listed in the following paragraphs below. Additionally, for Type II and Type III operations on Camp Lejeune, each attack requires an inbound heading call (in degrees).

1. SRRs for CAS Types II and III attack profiles with munition combinations for target sets will be submitted to Range Control for approval. New profiles require a Face-to-Face brief with the RSS using the WDZ tool to receive approval. As profiles are approved, a list will be maintained for future training events. Contact Range Control for the current approved list.

2. For Type II and III attacks, FAC/JTAC shall confirm aircraft's navigation system accuracy with aircrew prior to commencing the attack.

(5) The tactical agency ROICs and RSOs shall conduct a Face-to-Face brief with Range Control/BLACKBURN the day prior to commencement of any exercise involving the use of an agency in the restricted airspace. This brief shall provide an update of the range regulations, procedures as well as the current status of ranges, and current copy of SPINS to be used.

(6) Once the tactical agency has received control of the restricted airspace from Range Control/BLACKBURN, they shall retain control responsibility until completion of the exercise. **BLACKBURN retains authority to take back the airspace at any time in the event of an emergency or as deemed necessary.**

(7) The tactical agency shall be granted divert authority over all helicopter and tiltrotor aircraft operating in the Camp Lejeune area for the conduct of actual MEDEVACs from units in the field. The unit requesting the MEDEVAC/CASEVAC shall contact BLACKBURN on 233.8 UHF, 119.5 VHF, 34.70 FM, or any other available means and provide the following:

(a) Pick up coordinates;

(b) Number of personnel injured;

- (c) Type of injury/injuries;
- (d) If on board medical assistance is required;
- (e) LZ mark (smoke, panels, lights); and
- (f) Terminal controller and frequency.

6. Helicopter and Tiltrotor Operations

a. Helicopter and tiltrotor pilots shall inform BLACKBURN when entering, departing one TLZ for another, and exiting a restricted airspace.

b. Helicopter and tiltrotor pilots will observe the rules of the road (transit on the right side of the road) on red and blue routes and shall avoid over flight of Dixon High School and Dixon Middle School complex.

c. Helicopters operating in the Camp Lejeune area will normally transit at 1000 ft. AGL. Once established in a working area, helicopters will operate at 500 ft. AGL and below unless specifically cleared by BLACKBURN.

d. Tiltrotors operating in the Camp Lejeune area will transit at 1500 ft. AGL. Once established in a working area, tiltrotors operating in conversion or Vertical Take Off and Landing mode will comply with all helicopter regulations. Tiltrotor operations below 500 ft. AGL shall not exceed 130 knots, except in an area approved by BLACKBURN for High Speed Approaches.

e. MV-22 Squadrons will observe the following procedures to further reduce risk of starting fires when loitering on the ground during Fire Readiness Plan 6 and worse.

- (1) 75 percent nacelle
- (2) 75 percent engine power
- (3) Minimize time-on-deck

f. Helicopter and tiltrotor aircraft shall not exceed 2000 ft. AGL when fixed-wing aircraft are operating in R5306D/E. Minimum altitude for fixed-wing operations inside the restricted area is 3000 ft. AGL (coordinating altitude). Fixed-wing operations below 3000 ft. AGL coordinating altitude (i.e. strafing runs/low altitude ingress)

are authorized when deconflicted from participating and non-participating rotary-wing operations with lateral and altitude separation. Figure 4-2 depicts an Altitude V Diagram.

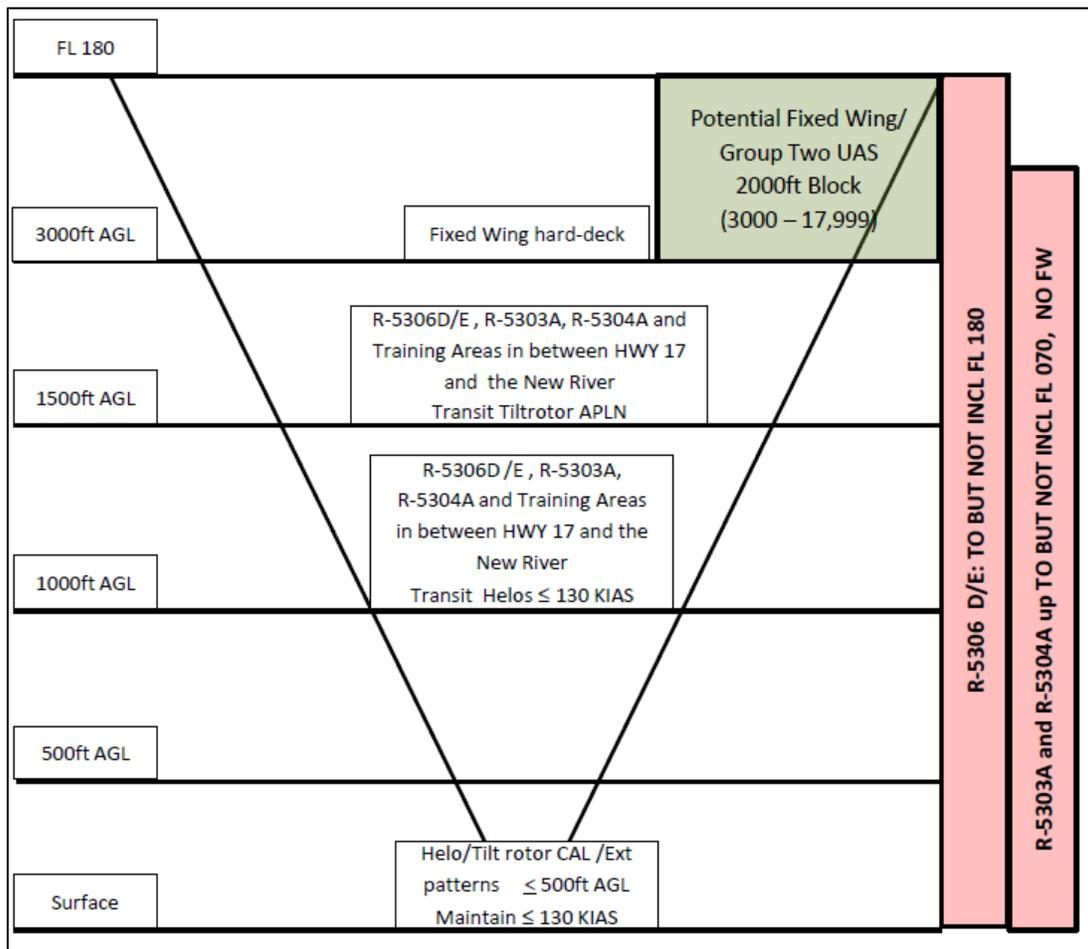


Figure 4-2.--Altitude V Diagram

g. Transiting aircraft shall not overtake another aircraft without first establishing positive two-way communication with the other aircraft on the Range Control frequency (233.8 UHF).

h. Due to the high volume of flights within Camp Lejeune controlled airspace predominately using night vision devices, in addition to lighting regulations set forth by FAA lighting exemption 8028C and reference (z), aircraft operations within the Camp Lejeune Complex shall abide by the following:

(1) Rotary-wing and tilt-rotor aircraft operating within the Camp Lejeune Complex are required to operate a minimum of IR position lights and/or IR anti-collision lights during night flights.

(2) All single ship aircraft and the last aircraft within a flight shall have overt position and anti-collision lights on.

(3) While conducting LZ operations, it is authorized, when at the discretion of the aircraft commander/flight leader safety of flight conditions exist, for a single ship and/or the last aircraft within a flight to secure the overt position and anti-collision lights below 200 feet AGL.

(4) During periods of daytime low visibility, flights must operate position or anti-collision lights to prevent collision and provide other aircraft the opportunity see-and-avoid.

(5) Aircraft flying at night without night vision devices will operate overt position and anti-collision lights. Unaided aircraft shall announce over BLACKBURN that they are unaided.

(6) Aircraft flying outside the Camp Lejeune Range Complex, refer to FAA lighting exemption 8028C and reference (z) for lighting.

i. Helicopter and tiltrotor live firing shall engage targets near the center of the impact area. Helicopter and tiltrotor aircraft shall have positive target identification prior to engagement. Aircraft which use lateral weapon engagements shall be routed so as to present minimal hazard to ground troops. See Appendix B of this Order for routes, headings, BPs, and HAS when using G-10, K-2, and N-1/BT-3 impact areas. See the Range Cards for use of G-10 UCAS procedures.

j. External lifts are not authorized from ALZs (except ALZ-22). Aircraft with external cargo shall not fly over improved roads, built-up areas on Camp Lejeune, or over the trailer park at center grid 800285 when transiting the New River (Blue Line). Contact BLACKBURN immediately in the event cargo is accidentally dropped, giving the grid coordinates and type of cargo dropped.

## 7. Helicopter/Tiltrotor Landing Zones

a. TLZs. All TLZs must be scheduled whenever troops are in the TLZ; external lifts, rappelling, fast rope, SPIE Rig training, troop lifts, etc. Scheduling all TLZ use is encouraged for availability and to track usage. Pilots may conduct unscheduled rotary-wing confined area landing and takeoff operations into TLZs only after authorization is granted by BLACKBURN and the pilot ensures, by overflight, referenced as a "Cold Pass," that the TLZ is not occupied. When a TLZ is used for troop lifts, a LZ Control Officer (Sgt or above) shall be established and will maintain communications with BLACKBURN.

TLZ	GRID 18S TD	LAT (N)	LONG (W)	TA	CO-LOCATED DZ/GP/MP/RWY
Albatross	89622754	34 34'06"	77 17'36"	IG	DZ, GP-18
Bat	94257827	35 01'32"	77 15'20"	Oak Grove OLF	Between Oak Grove Runways
Bluebird	87372597	34 33'13"	77 19'02"	ID	DZ, GP-22A/B
Canary	85312856	34 34'35"	77 20'25"	IF	GP-27
Buzzard	63583504	34 37'48"	77 34' 44"	SH	SR-9
Cardinal	78393689	34 39'00"	77 25'05"	KB	
Condor	75773544	34 38'11"	77 26'46"	MF	DZ
Coot	90944274	34 42'19"	77 16'58"	FA	
Crane	96203559	34 38'31"	77 13'25"	GE	GP-7
Dodo	88733098	34 35'56"	77 18'13"	HB	DZ, GP-16
Dove <sup>1</sup>	85883094	34 35'53"	77 20'05"	HB	GP-25
Duck	65772157	34 30'33"	77 33'05"	SV	Camp Davis S
Eagle	78504117	34 41'19"	77 25'05"	MC	
Egret	84633050	34 35'38"	77 20'54"	IE	GP-30
Emu	92955735	35 01'03"	77 16'09"	Oak Grove OLF	Departure end RWY 23 Oak Grove
Falcon	91452931	34 35'04"	77 16'25"	GG	DZ, GP-13
Finch	83573197	34 36'25"	77 21'38"	HG	GP-35
Flamingo	61623534	34 37'56"	77 36'02"	SG	SR-9
Goose	91973100	34 35'59"	77 16'06"	GG	DZ, GP-10
Gull	96923506	34 38'14"	77 12'56"	GI	GP-9
Hawk <sup>1</sup>	89643199	34 36'30"	77 17'39"	HE	
Jaybird	87953392	34 37'31"	77 18'46"	HD	
Kingfisher	71453264	34 36'37"	77 29'33"	SM	
Kite	81662935	34 34'58"	77 22'50"	JC	
Lark <sup>3</sup>	94773885	34 40'16"	77 14'23"	FC	DZ
Mallard	78794561	34 43'43"	77 24'57"	AC	
Oriole	80573120	34 35'57"	77 23'34"	JA	GP-33
Osprey	89432924	34 35'00"	77 17'45"	IA	GP-17
Parrot	76603901	34 40'08"	77 26'17"	MB	
Partridge	64713780	34 39'19"	77 34'03"	SE	
Peewee	70863349	34 37'04"	77 29'57"	SJ	SR-6
Penguin	90023769	34 39'35"	77 17'29"	GB	DZ, MP-1
Pheasant	66682359	34 31'39"	77 32'31"	SV	DZ, Camp Davis N
Phoenix	64892348	34 31'34"	77 33'41"	ST	
Pigeon <sup>4</sup>	93883829	34 39'57"	77 14'58"	MOUT	UH-1N/Y and CH-46 landings only.
Pipit	69343523	34 37'59"	77 30'58"	SF	SR-6 N
Plover	85413231	34 36'37"	77 20'25"	HC	DZ, GP-29
Quail	90608284	34 34'35"	77 16'58"	IB	GP-15

TLZ	GRID 18S TD	LAT (N)	LONG (W)	TA	CO-LOCATED DZ/GP/MP/RWY
Raven	93743837	34 40'00"	77 15'04"	MOUT	
Robin	95104295	34 42'29"	77 14'14"	QA	
Sandpiper	82603058	34 35'47"	77 22'14"	HG	GP-31
Snipe	72303728	34 39'08"	77 29'04"	SD	
Swallow	66672456	34 32'11"	77 32'32"	SV	
Swan	91338412	34 31'32"	77 16'41"	FE	GP-1
Tern	93893742	34 39'29"	77 14'57"	GC	MP-4
Turkey	70903138	34 35'56"	77 29'54"	SL	
Vulture <sup>2</sup>	76123001	34 35'15"	77 26'27"	LG	Contact EOTG
Woodpecker	92774083	34 41'19"	77 15'44"	QB	GP-3

Table 4-5--TLZs

NOTE(S):

1. TLZ DOVE and TLZ HAWK contain a large amount of loose sand, which can impact/limit CH-53E and V-22 operations.
2. Scheduling must be coordinated through the OIC, EOTG (S-3).
3. Approach TLZ LARK from North, South, or West. Approaches from the east across Highway 172 will be made only in the case of emergencies.
4. Located on top of Hotel at MOUT Complex Lejeune; capable of supporting the landing of one UH-1N/Y or lighter Helicopter upon approval of SRR from requesting unit. Approaches to TLZ Pigeon for landings and HRST shall be made from the NE to minimize roof damage to buildings directly South of TLZ Pigeon.

b. The Victor, Whiskey, and X-Ray Airspace Control Points may be utilized to provide control of aircraft operating feet wet off the coast of Camp Lejeune for High Speed Tactical Approaches as coordinated with BLACKBURN.

c. ALZs. Units shall schedule ALZs using procedures in Chapter 3, after coordination through the Area Commander of that ALZ. Some numbered ALZs do not appear in Table 4-6. ALZ-2, is located at II MEF Headquarters. It is the requesting unit's responsibility to coordinate with key personnel or acting representative of II MEF G-3 (Air Officer) at (910) 451-8487 prior to using ALZ-2. As with any request, II MEF G-3 (Air) is the (primary/secondary) user for time and date requests. Should dual use of ALZ-2 be requested, II MEF will deconflict and approve co-use. Those units requesting ALZ-2 marking lights to be turned on for night operations shall make it known on the TAR form in RFMSS. Requesting unit is responsible to coordinate safety, security, and traffic control issues. ALZ-4 and ALZ-33 are

scheduled through MCIEAST-MCB CAMLEJ AC/S, G-3/5 at (910) 451-0375. Requesting units shall contact the MCIEAST-MCB CAMLEJ AC/S, G-3/5 for a copy of the SOP for ALZ-4 and ALZ-33. ALZ-32 is scheduled through the MARSOC G-3 Air at (910) 440-0863/0862.

ALZ NUMBER	GRID 18S TD	LAT (N)	LONG (W)	LOCATION	AREA COMMANDER
2	82843950	34 40'28"	77 22'13"	II MEF Headquarters	CG, II MEF (G-3 Air)
4	85063840	34 39'54"	77 20'45"	WPT Hill Field	MCIEAST-MCB CAMLEJ G-3/5
5	84083793	34 39'38"	77 21'22"	Headquarters 2d MLG	CG, 2d MLG
6	84773720	34 39'15"	77 20'55"	10th Marines Area	CO, 10th Marines (S-3)
7	91573769	34 39'36"	77 16'28"	OP2 (Restricted)	RCO, G-3/5
8	83472961	34 35'08"	77 21'39"	Courthouse Bay	CO, MCES (S-3)
10	82484237	34 42'01"	77 22'29"	Tennis Courts Paradise Point (Restricted)	MCIEAST-MCB CAMLEJ G-3/5
12	80784388	34 42'49"	77 23'38"	Golf Course West	MCIEAST-MCB CAMLEJ G-3/5
13	82394390	34 42'50"	77 22'34"	Golf Course East	MCIEAST-MCB CAMLEJ G-3/5
15	74814686	34 44'21"	77 27'35"	Camp Geiger Parade Deck	CO, SOI-E (S-3)
20	80073629	34 38'42"	77 25'58"	Rear K-504A/B	RCO, G-3/5
22	90542691	34 33'46"	77 16'59"	EOTG Boat Locker	OIC, EOTG (S-3)
24	84184523	34 43'35"	77 21'25"	Naval Hospital	CO, NAVHOSP
26	85673630	34 38'47"	77 20'19"	French Creek Soifert Field	CG, 2d MLG (G-3)
27	75563045	34 35'29"	77 26'50"	Stone Bay Rifle Range	CO, WTBn
28	93793813	34 39'52"	77 15'01"	MOUT CTF (Restricted)	RCO, G-3/5
29	75044105	34 41'12"	77 27'20"	Camp Devil Dog	CO, SOI-E
32	74992965	43 35'04"	77 27'19"	MARSOC Headquarters	MARSOC G-3

33	85203848	34 39'57"	77 20'39"	WPT Hill Field	MCIEAST-MCB G-3/5
34	79254635	34 44'80"	77 24'40"	Headquarters Camp Johnson	CO, MCCSSS

Table 4-6--ALZs

8. Parachute Operations and Drop Zones. DZs must be scheduled in RFMSS for troop lifts, PARAOPS, rappelling, fast rope, and SPIE Rig training. Units performing PARAOPS must request a NOTAM. Range Control maintains copies of all DZ surveys (AF Form 3823).

DZ	GRID 18S TD	LAT (N)	LONG (W)	Rad/DME from NAVAID	TA/TLZ/GP/MP/RW Y CO-LOCATED
ALBATROSS <sub>1</sub>	89652752	34 34' 05"	77 17' 35"	DIW 098/008	IB, TLZ, GP-18
BLUEBIRD <sup>1</sup>	87382599	34 33' 13"	77 19' 02"	DIW 109/007	ID, TLZ, GP-22
CANARY	85342855	34 34' 58"	77 20' 41"	DIW 100/005	IF, TLZ, GP-27
CONDOR <sup>2</sup>	75793543	34 38' 11"	77 26' 45"	DIW 091/005	MF, TLZ
FALCON <sup>1</sup>	91512926	34 35' 03"	77 16' 23"	DIW 094/009	GG, TLZ
GOOSE	91983098	34 35' 59"	77 16' 06"	DIW 088/009	GG, TLZ, GP-10
LARK <sup>3</sup>	94763886	34 40' 16"	77 14' 29"	DIW 071/013	FC, TLZ
PENGUIN	90033769	34 39' 35"	77 17' 29"	DIW 064/010	FD, TLZ
PHEASANT <sup>4</sup>	66692361	34 31' 40"	77 32' 31"	ILM 069/019	SV, TLZ, Camp Davis N
PLOVER	85423229	34 36' 36"	77 20' 25"	DIW 075/006	HC, TLZ, GP-29

Table 4-7--Parachute DZs

NOTE(S):

1. Requires safety/recovery boats. Boat support is using unit responsibility. Safety Swimmers are a unit responsibility.
2. Requires coordination through MCAS New River Operations prior to use and scheduling with Range Control.

3. Only Ram Air parachute operations are authorized.
4. Use of DZ Pheasant must be deconflicted with MAG-26 and MAG-29.
9. Water Drop Zones

a. Water DZs must be scheduled three weeks in advance to permit publication of a Notice to Mariners (NOTMAR). (See Chapter 3 for scheduling procedures). Safety recovery boats and safety swimmers are required and must be provided by using units.

DESIGNATION	GRIDS	LAT/LONG	AREA	NAVAID RAD/DME
Farnell Bay	18STD 8436	34 deg 38" 28' N 77 deg 21" 29' W	Farnell Bay, New River	DIW059007
Gator	18STD 9326	34 deg 33" 27' N 77 deg 15" 21' W	Onslow Bay	DIW104010
Morgan Bay	18STD 8141	34 deg 41" 09' N 77 deg 23" 23' W	Morgan Bay, New River	DIW033008
Shark	18STD 8722	34 deg 31" 11' N 77 deg 18" 40' W	Onslow Bay	DIW125007
Stone Bay	18STD 8336	34 deg 35" 47' N 77 deg 25" 15' W	Stone Bay, New River	DIW051002

Table 4-8--Water DZs

b. Water DZ Special Instructions

(1) Water DZ Farnell Bay. Maximum altitude for jumpers to exit the aircraft is 1500 ft. AGL. Minimum water depth is 10 ft.

(2) Water DZ Morgan Bay. Coordinate use with the New River Operations Officer at DSN 484-6316/6317. Maximum altitude for jumpers to exit the aircraft is 1500 ft. AGL. Minimum water depth is 10 ft.

(3) Water DZ Stone Bay. Maximum altitude for jumpers to exit the aircraft is 1500 ft. AGL. Minimum water depth is 10 ft.

10. Drop Zone Control

a. DZ/Water DZ Safety Officer (DZSO) Jumpmaster/Safety Insert Officer (SIO) (Sgt or above) will be assigned for parachute operations. DZSO must be current and a certified jumpmaster/Safety Insert Officer (SIO) on the Command Certification Letter. The DZSO shall:

(1) Carry out the duties normally associated with a FAC/Terminal Controller, to include signing for the DZ and creating/releasing a NOTAMS.

(2) Check-in with BLACKBURN at start of operations and monitor the range safety/control net throughout parachute operations.

(3) Inform BLACKBURN of any periods when aircraft are not on station, when operations resume, and when operations are complete with the number of personnel trained and number of jumps.

(4) Contact BLACKBURN to ensure all aircraft exit the Restricted Area (Airspace) R-5304, Restricted Area (Airspace) R-5306D, and Restricted Area (Airspace) R-5306E NOTAM airspace during High-Altitude, Low-Opening jumps within these areas.

(5) If any part of the DZ is within 1000 meters of a body of water that is four ft. or deeper, must have the required safety boats and safety swimmers to support the number of jumpers.

b. Use of DZs on the west side of the New River must also be coordinated in advance by the using unit with MCAS, New River Operations and the Tower (360.2 UHF or 120.0 VHF).

#### 11. Unmanned Aircraft System Operations

a. According to current FAA regulations, UAS operations must be conducted within Restricted or Warning Areas or as designated in the National Airspace with an approved Certificate of Authorization (COA) or Waiver. Due to this restriction, UAS operations cannot originate from TLZs Cardinal, Condor, Eagle, Parrot, Vulture, Phoenix, Swallow, Pheasant, Duck, or Bat and Emu at Oak Grove without an approved FAA COA or Waiver. UAS operations are permitted in the GSRA Restricted Area with the exception of the Holly Ridge and Sky Manor airport exclusion areas. Once airborne, UASs cannot depart the Restricted Area except under special circumstances that have been coordinated with the FAA and ATC. All UAS operations will be conducted in accordance with reference (a) and this Order which provide institutional range safety guidance and direction for units training with and/or testing UASs on operational training ranges. Reference (a) can be found on the RCD website.

b. TLZ Bluebird has a UAS Runway Facility (hard packed gravel runway) designed for the larger UASs like the Shadow and Fire Scout. This facility was designed to meet the requirements for UASs that need a runway to take off and land on. Units with larger UASs that need this facility to operate at Camp Lejeune are required to schedule it in RFMSS.

c. Preplanned and available for scheduling, Restricted Operating Zones (ROZs) exist as the primary airspace for UAS operations, (see Table 4-9 and Range Control website). When launching and/or recovering from within Camp Lejeune airspace, a Launch and Recovery Site (LRS) for the Ground Control Station (GCS) must be reserved in

RFMSS. UAS operations outside of the preplanned ROZs may be requested through RFMSS but will require additional coordination with Range Control.

ROZ #	ROZ Name	Perimeter WGS-84 GRID (18S TD)	LRS <sup>1</sup>
1	Onslow Bay	890260,930290,930250,910240	Beach/Ship
2	Highway 172	955370,962370,972343,962348,952344	TLZs Crane/Gull/Ship
3	MOUT Lejeune	900400,945400,945375,900375,895387	TLZs Pigeon/ Raven/ MOUT facility/Ship
4	Marines Road	870350,892350,900320,906320,906305 ,930290,890260,830302,852320	LZs Jaybird/Falcon/ Osprey/Albatross / Quail/Egret/Dove /Ship
5	Bluebird	850290,900275,900240,850270	TLZ Bluebird
6	Stone Bay UAS	746288,752272,758280,765285,766291 ,758297,754299,753296	LC
7	GSRA CIED	632260,650260,650250,633250	OP-11
8	Farnell Bay	830364,850364,854355,820313,800320 ,830340	Boat
9	AIWW	977346,980340,910270, 880250,875255,906274,968336	Boat
10	Combat Town	880330,898330,800320,900310,880310	TLZ Hawk, Combat Town
11	Lark	930395,945395,956376,93037	TLZ Lark
12	Falcon	907304,907305,925316,935302,916283 ,906301	TLZ Falcon
13	GSRA- Turkey	690320,720320,710283,680270,680290	TLZ Turkey
14	Partridge	636400,650400,650370,626370	TLZ Partridge
15	Finch	833325,847316,844315,837307,834301 ,825306,818306,830323	TLZ Finch
16	Robin	925430,940434,953430,953422,947410 ,947405,925405	TLZs Robin/ Woodpecker

Table 4-9--Camp Lejeune SUAs ROZs

Note. LRS Sites are for UAS employment. Group 2-5 UAS may launch/recover from inside the ROZ or transit to the ROZ from a remote LRS site.

d. UAS operations will be scheduled in accordance with Chapter 3 along with the following considerations.

(1) All ROZs are listed in RFMSS for scheduling to allow units to use a 2-week calendar to identify if there are any conflicts. ROZs are represented on a portion of the Camp Lejeune map and can be viewed on the RCD website. Temporary ROZs will be coordinated with and approved by Range Control. Group 2 and larger UASs may have more than one ROZ and work between them as BLACKBURN can deconflict. The launch/recovery site is a normally a TLZ within the ROZ. Group 2 and larger UASs originating and/or terminating outside of Camp Lejeune Restricted Areas shall coordinate an entry/exit point and routing to and from a ROZ via RFMSS. The minimum acceptable separation between manned and unmanned aircraft is 1000ft vertically and 1000 meters laterally. Deconfliction with other training units is the main reason ROZs are established in RFMSS and published. All scheduled ROZs will appear on the Daily RFWO with altitudes so aviation training units can brief and avoid them. Deconfliction may be required prior to Range Scheduling approval. Deconfliction e-mails will be submitted to [lejeunerangescheduling@usmc.mil](mailto:lejeunerangescheduling@usmc.mil).

(2) Group 2 and larger UASs shall have the ability to load a programmed flight plan, which the unmanned aircraft will execute autonomously should the control link be lost. This flight plan can be adjusted in flight, after coordinating with BLACKBURN, should it be necessary. The basic plan shall always begin with the unmanned aircraft holding its present position within a ROZ for 30 minutes, and then proceeding directly to either the scheduled Divert Pattern or preplanned exit point, as required. BLACKBURN shall be notified immediately if the up/down link is lost with the unmanned aircraft for more than five minutes to be able to clear the flight plan route. These five minutes will allow the UAS pilot time to reacquire the unmanned aircraft while leaving an additional 25 minutes for BLACKBURN to clear airspace.

(3) If a UAS unit is controlling a Group 2 and larger UAS from outside Camp Lejeune airspace desires to place a control station on Camp Lejeune, this location must be scheduled in the original RFMSS request. The UAS unit must comply with the check-in/out procedures and ROIC/RSO requirements of this Order.

e. ROIC and RSO

(1) COs of the UAS units shall designate certified and qualified Mission Commanders, Unmanned Aircraft Commanders, UAS system operators, and Pilots/UAS Operators on their CO's Certification Letter (unit training) who will be responsible for the overall conduct and safety of UAS operations. The Mission Commander/Unmanned Aircraft Commander is the ROIC and shall be knowledgeable and experienced on UAS operations, of the grade of E-6 or above, and has a current Camp Lejeune ROIC/RSO Safety Card to sign out the event/facility.

(2) The Mission Commander/Unmanned Aircraft shall assume all ROIC responsibilities listed in Chapter 1 of this Order for scheduled UAS flight operations.

(3) If a unit is undergoing initial qualification training for a UAS from a contractor while launching and/or recovering from Camp Lejeune, the unit will provide the ROIC and the contractor will provide a Camp Lejeune trained RSO. Contractors cannot be a ROIC.

(4) Group 2 and larger UASs operating from a LRS on Camp Lejeune are required to comply with the same ROIC requirements as Group 1 UAS but must also have an RSO.

(5) Use of lasers from UAS shall be in accordance with Chapter 7 of this Order.

f. Pre-flight Preparations

(1) Prior to conducting UAS operations the following information needs to be made available to BLACKBURN upon request:

(a) ROIC and RSO POC information;

(b) Location of the GCS, Portable Control Station (PCS), and LRS;

(c) UAS type and mission (e.g., IQT, currency flying, test flight, training flight, flight in support of, etc.);

(d) Hours of operation;

(e) ROZ(s) and altitude block within ROZs for flight operations;

(f) Intended UAS route (if applicable);

(g) Transponder code (if equipped);

(h) Review Emergency/Down UAS and lost link procedures;  
and

(i) Any other pertinent information on the conduct of the flight.

(2) All UAS flights in the Camp Lejeune restricted areas require a ROIC and pilot/operator. The ROIC is responsible for the overall safe operation of the UAS and serves as a direct liaison with Range Control. Group 2 and larger UASs also require an RSO and a pilot/operator at the location it is being controlled from, whether it is offsite or at Camp Lejeune.

(a) For all Group 1 flights or Group 2 and larger operations utilizing an LRS on Camp Lejeune, the ROIC must be physically present at the LRS. The ROIC shall establish communications with BLACKBURN on 34.70 FM (Primary), 40.10 FM (Alternate) or phone (910) 451-3064 prior to conducting flight operations.

(b) For Group 2 and larger flights controlled from an external site, the ROIC will also be located at Camp Lejeune. The ROIC will maintain communications with BLACKBURN and RSO and pilot/operator.

(3) Group 2 and larger UAS shall establish and maintain communications with Range Control (BLACKBURN/CHIEFTAIN) on the Air Safety Control Net (233.8 UHF) prior to entry into Camp Lejeune restricted airspace. All Group 2 and larger UASs shall have an operable IFF transponder capable of Mode 3C operation.

g. Weather Minimums

(1) Group 1 weather minimums for all UAS operations are 500 ft. and 1.5 miles visibility.

(2) Group 2 and larger take-off weather minimums for pattern work are 1000 ft. ceiling and three statute miles visibility. Group 2 and larger weather minimums for all other UAS operations in the restricted areas are 3000 ft. ceiling and three statute miles visibility.

UAS CATEGORY	UASs IN THIS CATEGORY	MAX WT (LBS) (MAX GROSS TAKE OFF WEIGHT)	NORMAL OPERATING ALTITUDE	SPEED KIAS
Group 1	Raven Wasp Puma T-Hawk	0-20	Less than 1200 ft. AGL	Less than 250

UAS CATEGORY	UASs IN THIS CATEGORY	MAX WT (LBS) (MAX GROSS TAKE OFF WEIGHT)	NORMAL OPERATING ALTITUDE	SPEED KIAS
Group 2	Scan Eagle	21-55	Less than 3,500 ft. AGL	Less than 250
Group 3	Scan Eagle (with T/O wt over 55 lbs) Shadow Blackjack	Less than 1320	Less than 18,000 ft. MSL	Less than 250
Group 4	Predator Reaper	Greater than 1320	Less than 18,000 ft. MSL	Any airspeed
Group 5	Global Hawk Global Observer	Greater than 1320	Greater than 18,000 ft. MSL	Any airspeed

Table 4-10--UAS Characteristics

h. UAS Flight Operations

(1) For UAS operations launching and/or recovering on Camp Lejeune, the ROIC or RSO shall contact BLACKBURN 30 minutes prior to takeoff and request to go "HOT" in their scheduled ROZ and LRS. BLACKBURN shall provide a Range Control brief, activate the scheduled UAS ROZ/LRS, and provide advisories for takeoff. The ROIC or RSO shall notify BLACKBURN when the UAS is "SAFE ON DECK," and when training is complete for the day contact BLACKBURN to de-activate UAS ROZ and report the number of personnel trained and the number of sorties.

(2) For UAS operations launching and recovering outside of Camp Lejeune airspace, the UAS ROIC or RSO shall contact BLACKBURN prior to entering the restricted area to activate their ROZ and receive a Range Control brief with advisories. Upon completion of training, the UAS ROIC or RSO shall radio out with BLACKBURN, de-activate UAS ROZ, and report the number of personnel trained and the number of sorties.

(3) The UAS ROIC or RSO shall request clearance from BLACKBURN before changing the operating UAS position (scheduled ROZ), altitudes, or route.

i. In-Flight Emergencies. The safety of manned aircraft, personnel and property is paramount, the UAS ROIC or RSO shall adhere to all safety precautions prescribed in this chapter, managing emergencies in accordance with their UAS Emergency Procedure Checklist and the following range procedures:

(1) In the event of lost communication with BLACKBURN, the ROIC shall:

(a) Follow the last advisory received.

(b) Maintain UAS within assigned ROZ and within assigned altitude or altitude block.

(c) Try to re-establish contact with BLACKBURN via any means (alternate radio, land line, cell phone, etc.). BLACKBURN shall advise all other aircraft in the Restricted Area of the lost communication event.

(d) For Group 1 UASs, if communications have not been re-established with BLACKBURN after 30 minutes or bingo fuel (battery life) has been achieved (whichever is first), remain in the scheduled ROZ and land as soon as practical.

(e) For Group 2 or larger UASs, if communications have not been re-established with BLACKBURN, change squawk to lost communications (7600) if able. Maintain assigned altitude block and proceed to pre-briefed recovery ROZ or exit point while avoiding active Gun Target Lines (GTLs). Once over or in the recovery ROZ, descend as required to recover.

(2) If required to ditch, the UAS ROIC or RSO shall:

(a) Notify BLACKBURN as soon as possible.

(b) Maintain the UAS inside the restricted airspace.

(c) Proceed to the pre-briefed ditch site or, if unable, select and clear a suitable ditching area and notify BLACKBURN.

(d) Advise BLACKBURN of the location of the ditching point and recovery procedures taken. If UAS is ditched in the G-10 impact area, EOD support (escort) is required for entry.

(3) An emergency divert landing site can be established upon Camp Lejeune. The planning and scheduling requirements are the same as any other LRS site. The UAS ROIC or RSO must advise BLACKBURN of their intention to either use the divert landing site or depart the airspace should an emergency arise.

(4) Emergency Recovery. The UAS ROIC or RSO may declare an emergency whenever conditions require the UAS to land as soon as possible. They shall:

(a) Contact BLACKBURN; declare an emergency.

(b) BLACKBURN will divert all other aircraft from the projected UAS flight path.

(c) Advise BLACKBURN of required altitudes to expedite recovery.

## 12. Lyman Road Operations

a. Prior to the day of event, mission planner shall contact Cherry Point Central Scheduling Office at (252) 466-4040/4041 (DSN: 582) to de-conflict Restricted Area (Airspace) R-5306C. Day of event, contact BIG ROCK Range Control to de-conflict Restricted Area (Airspace) R-5306C at (252) 466-2936/5127. Any use of Lyman Road that requires closure of the road must be made known to the Training Support Division at least fourteen days prior to the scheduled event as this will result in the closure of all ground training simulators located on Lyman Road.

b. ROIC will check out Lyman Road Monday-Thursday up to eight working days in advance.

c. ROIC will have a Face-to-Face brief with BLACKBURN after checkout. ROIC may check out Lyman Road for the entire scheduled period. Subsequent safety briefs for the original ROIC shall be done between ROIC and BLACKBURN by radio or telephone.

d. Should there be a change of ROIC, Lyman Road shall have to be checked out again by the new ROIC and a Face-to-Face with BLACKBURN conducted.

e. ROIC shall have two radios tuned to 34.70 FM at all times and shall use the call sign "PADDLES."

f. Lyman Road shall be closed to vehicle traffic at two intersections (Sneads Ferry Road-Lyman Road; Highway 172-Lyman Road) for the entire period of operations. In addition, all access trails must be closed to traffic. Road guards must have communications with the ROIC (Paddles) at all times.

## 13. Concurrent Lyman Road and G-10 Impact Area Operations

In addition to the instructions in paragraph 10 above:

a. Prior to day of event, mission planners shall contact Cherry Point Central Scheduling Office at (252) 466-4040/4041 (DSN: 582) to de-conflict Restricted Area (Airspace) R-5306C. Day of event, contact BIG ROCK Range Control at (252) 466-2936/5127 to de-conflict Restricted Area (Airspace) R-5306C.

b. Lyman Road aircraft shall check in with the airspace control agency only at Point NOVEMBER and hold at 3500 ft MSL.

c. After the standard brief, aircraft shall switch to PADDLES. ROIC (PADDLES) and all road guards must maintain communications on a frequency other than 34.70 FM or 233.8 UHF.

d. PADDLES shall route aircraft to "JULIET" (must be at or above 4000 ft MSL at JULIET) and then into the landing pattern, either in a clockwise or counter-clockwise pattern north of Lyman Road depending on wind direction.

e. Lyman Road aircraft shall be restricted from flying south of Lyman Road (including the takeoff). All AV-8B/F-35B operations must remain within Restricted Area (Airspace) R-5306D airspace and are not authorized to enter MCAS New River controlled airspace unless coordinated.

f. When Lyman Road is in use, CAS aircraft into the G-10 shall not use control point November and will be restricted from flying North of the G-10 Impact Area.

g. If an AV-8B/F-35B on Lyman Road is armed for CAS into G-10 when it is launched from Lyman Road, it must switch to BLACKBURN /CHIEFTAIN, briefed by BLACKBURN/CHIEFTAIN, and be cleared to an IP outside the restricted airspace. The aircraft will then be switched to a FAC/Joint Terminal Attack Controller/ Universal Ground Spotters.

h. Requests for vehicles to traverse Lyman Road to the MOUT or OP-2 while AV-8B/F-35B operations are in progress shall be coordinated by the road guard and the ROIC (PADDLES). All traffic requiring entrance to the MOUT or OP-2 shall approach from the Highway 172/Lyman Road intersection only or use the gate at LZ Lark.

#### 14. Forward Arming and Refueling Point Operations

a. FARP operations are authorized at TLZs Crane, Swan, Woodpecker, Gull, Osprey, Albatross, Bluebird, Dodo, Plover, Penguin, Condor, Camp Davis (North and South), and Lyman Road. Refueling operations only are authorized at Oak Grove with a SRR. Refueling operations require a Request for FEREIR be submitted to the NEPA section of the EMD. These areas must be scheduled for FARP operations and signed for. Upon completion, the TLZ must be inspected and cleared by a Range Inspector. All USMC tactical refueling systems are authorized for use.

b. The CO of the unit conducting FARP operations has ultimate responsibility for the safe conduct of operations within the site and must adhere to all governing policies, orders and unit SOPs. Unit commanders shall ensure TAs, TLZs, and GPs forward of the FARP site

are clear of troops and personnel and that orientation of the FARP site does not pose a danger to facilities, vehicles, or boat traffic. The safety arc forward of the arming aircraft will be an area defined by 1000 ft. arc in front of the arm/de-arm spot(s) oriented along the arm/de-arm heading and 25 degrees to either side of the spot or outboard spots. The Explosive Safe Quantity Distance (ESQD) will be a circle centered on the temporary ASP with the radius defined by the total NEW of the temporary ASP. Exercise units shall minimize personnel within the ESQD to those needed to support arming/de-arming operations. The ESQD shall be established as early as possible to identify and schedule adjacent TAs and facilities to preclude non-exercise units from scheduling them.

c. Lyman Road FARP operations are limited to AV-8B/F-35B only. FARP operations shall be conducted from existing sites along Lyman Road. All access roads leading to Lyman Road to include all tank trails will be closed and the unit will provide road guards as required during the FARP operations.

d. Hot refueling with ordnance is authorized. Appropriate NATOPS/NAVAIR instructions apply. The complete SDZ must be cleared of all unauthorized personnel at all times.

e. Aviation ordnance (Training Practice Only) is authorized for all FARP sites. In addition, 2.75 Inert Rockets, 20mm TP, MK 76, and MK 80 (inert) bombs are authorized on Lyman Road. COs shall adhere to all policies and guidelines as set forth in governing documents, this Order, and unit SOPs.

f. If the FARP operations require berm construction, excavations, vegetation removal, or anything with potentially significant impact to the environmental integrity of the site, a SRR must be submitted to the CG MCIEAST-MCB CAMLEJ (G-3/5 RCD) with a FEREIR. A SRR and FEREIR must also be submitted if the unit proposes to FARP at a location other than those already approved above. The FEREIR must be submitted 30 days prior to the scheduled FARP activities.

g. Ground Safety Measures

(1) Using unit shall secure a perimeter around the FARP site in order to exclude non-exercise personnel from entering the FARP site. The Safety Arc and ESQD of the aircraft shall be cleared and maintained clear until completion of the loading, unloading, arming and de-arming.

(2) Fuels and ordnance storage and activities shall be separated by a minimum of 300 ft.

(3) In the event of a spill of any quantity, units shall immediately contact the Fire Department by calling 911 and BLACKBURN.

Units shall promptly implement spill contingency and or containment procedures as listed in unit SOP and other governing documents.

h. Scheduling FARP Operations

(1) Units shall schedule authorized FARP sites, TLZs, and adjacent TAs via the RFMSS. Units requesting the authorized sites or TLZs via RFMSS will select event type "flight operations." In the "additional information" block of the RFMSS screen, using units will indicate "FARP operations ("HOT" or "COLD", with or without ordnance)." Units shall also schedule the surrounding TA(s), TLZs, and GPs for exclusive use to assist the commander in ensuring non-exercise personnel do not enter the FARP site.

(2) Once scheduled, units shall contact Director, Installations and Environment, Resource Conservation and Recovery Section (RCRS) at DSN: 751-1482/commercial (910) 451-1482 and ECON at DSN: 751-5063/commercial (910) 451-5063 of their intention to conduct FARP operations. Notification shall include type of ordnance, amount of fuel to be used in gallons, tactical refueling systems to be used, location of refueling points by grid coordinate, and dates and times of FARP operations.

(3) Units shall coordinate a Face-to-Face brief with RCRS, Environmental Compliance Branch, and Range Control. The Face-to-Face brief is a protective measure to ensure the unit is aware of all governing regulations, changes to regulations, and requirements. The Face-to-Face brief shall take place at a minimum of 15 days prior to execution. During the Face-to-Face brief, units shall brief:

- (a) Operations Order or Letter of Instruction;
- (b) Spill response plan, equipment, ammunition mishap, and containment procedures;
- (c) Type and quantities of fuel and ordnance;
- (d) ARFF assets/equipment;
- (e) C2 and communications plan;
- (f) Medical;
- (g) FARP site diagram; and
- (h) Security/road guard plan

i. Communications Procedures

(1) ROIC/RSO shall check out the FARP site from Range Control scheduling, Building 54.

(2) ROIC/RSO shall call BLACKBURN on 34.70 to request authorization to occupy the FARP.

(3) In order to go "HOT," the ROIC/RSO shall ensure all orders/publication/SOPs concerning FARP operations are followed. Additionally, the ROIC/RSO shall, at a minimum:

(a) Establish communications with BLACKBURN (34.70).

(b) Ensure appropriate medical personnel and support vehicle are onsite.

(c) Ensure spill response equipment is onsite and response personnel know the spill response plan.

(d) Ensure aircraft rescue/ firefighting personnel and equipment are onsite and know the response plan.

(e) Ensure TAs, TLZs, and GPs forward of the FARP site are clear of training units/personnel.

(f) Establish road guards as required with proper communications.

(4) Once authorization to go "HOT" is received from BLACKBURN, the ROIC/RSO will make normal radio checks on the half hour and hour.

(5) Upon completion of training, the ROIC/RSO will request to go "COLD." BLACKBURN will dispatch a Range Inspector to the position and place the unit in a cold status; all FARP operations shall then be terminated.

j. Armament Safety Procedures

(1) Aircraft weapon systems will be loaded or unloaded only in approved areas. Selection of these areas will ensure total containment in the event of accidental discharge. The weapon systems dispersion angle and maximum range will be considered if natural or manmade barriers are not used.

(2) Airspace routing used by rotary-wing aircraft flying from the ammunition loading site to and from the firing range will be plotted on a map or chart and maintained by both the using unit and the Installation range control office. This course will be selected so that accidental firing at any point on the course will minimize risk to life and property, however, aircraft weapon systems will be maintained in a safe condition until within the range boundary.

Rotary-wing aircraft routing from the ammunition loading site to the firing range will be published in local SOPs.

(3) When training requirements dictate, commanders (battalion, squadron, or higher) will direct the loading and unloading of ammunition from aircraft while the engines are running. Such operations are authorized when a thorough risk assessment has been conducted, control measures implemented and residual risks identified and accepted by the appropriate commander.

(4) A dry pass or range sweep for the entire range, focusing on the target area, will be accomplished to ensure personnel are clear from hazardous effects. Aircraft may use onboard sensors (advance targeting pods, sniper, Litening Pod), or UAS targeting payload in lieu of a dry pass. Terminal controllers observing the target area may waive the dry pass.

(5) Prior to first weapons release/firing for each pass, final switch configuration will not be accomplished until the aircraft is in such a position that accidental activation or release will be contained within the range, and not represent a danger to ground personnel.

#### 15. Chaff and Flare Training

a. Chaff/flare training is not authorized in the GSRA or the K-2 impact area. Chaff and flares are authorized in the G-10 impact area and flares only if they burn out before hitting the water in N-1/BT-3 impact area. Chaff/flare operations must be properly scheduled in RFMSS and a SRR is submitted within 10 working days of the event. Two critical factors need to be considered; wind direction and current fire condition. Units must submit a SRR, per Appendix E. The SRR process will allow Range Control to:

(1) Notify local FAA authorities;

(2) Provide public notice as necessary; and

(3) Notify Fire Protection and Forestry in order to allow for appropriate safety measures.

b. Flares are never authorized during Fire Condition 5 or higher. Other fire hazard conditions may restrict/modify flare use throughout the Camp Lejeune Range Complex.

c. Training units must monitor wind speeds and directions to ensure chaff fiber or flare debris does not migrate out of the G-10 impact area and possible off-base, into the ASP, or Fuel Farm on the western side

16. Landing Helicopter Deck

a. The LHD Deck was designed to resemble a Wasp Class LHD to allow pilots to meet their required Field Carrier Landing Practice (FCLP), approaches and landings, prior to going to a ship. The LHD Deck has four lighted spots with the same dimensions as spots 2, 4, 5, and 6 on the Wasp Class LHD, 114.5 ft. between spots. Total LHD Deck length is 495 ft. and width is 62 ft. (width to center line of Wasp Class LHD).

b. The LHD Deck has Pilot Activated Lighting System to activate the deck lighting system similar to an uncontrolled airfield. To activate the deck lights use the following procedures.

(1) Pilot turns tactical radio to 30.55 FM.

(2) Pilot depresses mike button three times to turn on landing lights to low intensity.

(3) Pilot depresses mike button five time times to turn on landing lights to medium intensity.

(4) Pilot depresses mike button seven times to turn on landing lights to high intensity.

(5) Lights will stay on for 15 minutes.

(6) The same desired number of button depressions will reactivate the lights as needed.

c. LHD Deck Maintenance. Periodic scheduled maintenance of the LHD Deck will occur on the first Wednesday of every month. Duration of inspection depends on whether it is for a monthly (two hours), semi-annual (four hours), or annual (six hours) inspection. Unscheduled maintenance will occasionally occur when immediate repair is necessary for safe use of the LHD Deck. It is incumbent on all using units to report any damage or inoperable lights to Range Control/BLACKBURN as soon as possible to maintain the LHD Deck in a safe operable condition.

d. The LHD Deck may be scheduled in RFMSS 2-90 days out or NLT 48 hours prior to the training event. When not scheduled, the LHD Deck will be considered an LZ of opportunity. A SRR is required for external loads and HRST from the LHD Deck. No special use will be granted unless prior approval from the RCO by a SRR.

e. The LHD Deck may be scheduled in RFMSS like any other training facility.

f. When scheduled, BLACKBURN will clear all scheduled aircraft (either single aircraft or flight lead) into the LHD Deck. When used

as an LZ of opportunity, aircraft will call BLACKBURN and request the LHD Deck. BLACKBURN will deconflict airspace and clear aircraft into the LHD Deck.

g. Aircraft shall maintain communications with BLACKBURN while training at the LHD Deck. Communication between aircraft in the LHD pattern will be on a frequency other than BLACKBURN.

h. Procedures when aircraft are using the LHD Deck without Landing Zone Control Officer:

(1) LHD Deck may be scheduled and approved but does not have to be signed out at Range Control for FCLPs. This is similar to a reserved TLZ or TA, there are no ROIC or RSO requirements. If conducting external lifts with an approved SRR, the HST unit **must sign out** the LHD Deck similar to using a TLZ for externals.

(2) Aircraft shall check in on UHF 233.8 or FM 34.70 with BLACKBURN upon entering/exiting the Restricted Area (Airspace) R-5306D/E airspace and announce operating intentions.

(3) BLACKBURN will advise of other aircraft operations, all live-fire ranges in a "HOT" status, and all active GPs/MPs.

(4) At the conclusion of training, aircraft will report any damage or light outage, and the number of aircraft, landings, and personnel trained.

i. Procedures when aircraft are using the LHD Deck **with** Zone Control Officer (simulating ship's Primary-Flight Officer):

(1) LHD Deck requires a ROIC that is certified by the unit CO to act as Landing Zone Control Officer and annotated in the enclosure to the Commander Certification Letter. The ROIC shall assume all the responsibilities and duties as defined in Chapter 1 of this Order. If Landing Signal Enlisted personnel are used, the unit CO is responsible for their training as well as certified in the enclosure to Commander Certification Letter. Lead Instructor Pilot aircraft commander will assume the RSO responsibilities for the flight but will not have to be RSO qualified.

(2) LHD Landing Zone Control Officer shall request permission to for the LHD Deck to go "HOT" from BLACKBURN, on the Range Control safety net (UHF 233.8 or FM 34.70).

(3) LHD Landing Zone Control Officer shall maintain radio communications with BLACKBURN during the period the LHD Deck is "HOT" for training by reporting in on the half hour and hour.

(4) LHD Landing Zone Control Officer shall work aircraft on a frequency other than the range control safety nets.

(5) At the conclusion of training, Landing Zone Control Officer shall request permission to go "COLD" from BLACKBURN and report; any damage or light outage, number of aircraft, landings, and personnel trained. If aircraft use chemical lights in lieu of deck lighting, the using unit is responsible for removing them to prevent possible foreign object debris (FOD) damage to engines.

j. Pattern Restrictions

(1) Maximum of two aircraft in LHD pattern. This assumes one aircraft on deck and one in the downwind. If both aircraft desire to be on deck at the same time an empty spot will be maintained between the aircraft. If more than two aircraft are requesting to use the LHD deck a SRR and ORM matrix mitigating the risk of landing on adjacent spots will be submitted to Range Control for approval.

(2) Aircraft shall turn to downwind no farther than 1000 meters upwind. The turn to base leg shall be initiated prior to arriving abeam the Sneads Ferry Bridge.

(3) Maximum pattern altitude is 400 ft.

(4) Aircraft will maintain a 250 meter buffer from Bald Eagle nesting area (approximately 500 meters SE at grid 803297) when using the LHD Deck in accordance with Chapter 2 of this Order.

17. MCOLF Camp Davis North/South

a. General. MCOLF Camp Davis (34°31'N/77°33'W, grid 18STD 665225) is an unmanned, uncontrolled airstrip situated in the extreme southeast corner of the GSRA under the Restricted Area (Airspace) R-5304 restricted area. The FAA identifier is 14NC. The airfield is one nm northeast of the town of Holly Ridge and 13 nm south (205 radial) of MCAS New River. The landing areas consist of two separate numbered, concrete/paved runways. Runway 05/23 (Camp Davis South) is 5000 ft. long by 250 ft. wide. Runway 01/19 (Camp Davis North) is 5047 ft. long by 150 ft. wide. Airfield elevation at MCOLF Camp Davis is 60 ft. MSL. TLZs Phoenix, Swallow, Duck and TLZ/DZ Pheasant are also located in the Camp Davis area. The Restricted Area (Airspace) R-5304A contains a three mile, 1500 ft. AGL exclusionary zone for Holly Ridge Air Park; a grass strip located east of the town of Holly Ridge (approximately two nm SE of Camp Davis). This exclusion zone allows civilian traffic to enter the Camp Davis area below 1500 ft. whether Restricted Area (Airspace) R-5304A is HOT or COLD. This exclusion zone is not SUA.

b. Scheduling. The CG MCIEAST-MCB CAMLEJ (G-3/5 RCD) is the scheduling agent for training operations at MCOLF Camp Davis.

(1) 2d MAW units, specifically MAG-26 and MAG-29, are the primary users of Camp Davis runways and TLZs Pheasant, Phoenix, Swallow, and Duck. The only exceptions are prioritized Joint, Combined, or MAGTF Exercises.

(2) All aviation air capable units (to include fixed-wing) and parachute capable units desiring exclusive use of MCOLF Camp Davis must submit a TAR via RFMSS from two to 90 working days prior to the requested training date to the CG MCIEAST-MCB CAMLEJ (G-3/5 RCD). Requesting units are responsible for meeting and deconflicting 2d MAW requirements before scheduling the event. TARs must indicate type of training requested. MAG-26 and MAG-29 will send a deconfliction email approving use to Range Scheduling.

(3) Any unit requiring exclusive use of Camp Davis must ensure all issues are deconflicted and the exclusive use requirement is highlighted and fully justified in their TAR.

(4) The MCIEAST-MCB CAMLEJ RFWO will include the scheduling and maintenance status of MCOLF Camp Davis. The monthly NOTAM request, which includes the GSRA and MCOLF Camp Davis, is prepared and sent to Cherry Point using RFMSS approved events in accordance with Chapter 3. If an event is not included in the monthly NOTAM request to Cherry Point, due to scheduling within 35 days of the date of the event, the unit is responsible for contacting Cherry Point and requesting a NOTAM.

(5) All squadrons shall consult the Camp Lejeune Range Control daily RFWO during flight planning to avoid conflicts. Tenant squadrons may conduct unscheduled helicopter and tilt-rotor operations at the Camp Davis airstrip or TLZs Pheasant, Phoenix, Swallow, and Duck by communicating with BLACKBURN (233.8 UHF). Once authorization has been granted by BLACKBURN and the pilot has ensured, by "COLD" pass, that the runway or TLZ requested is not occupied, the training can be conducted. Upon departure from the Camp Davis area, aircraft shall notify BLACKBURN of completion of training and what training was conducted (i.e. number of personnel trained, number of aircraft, number of landings, etc.).

(6) MCOLF Camp Davis is an uncontrolled airstrip. **Pilots are responsible to see-and-avoid other aircraft and for strict adherence to the course rules.** ATC, ARFF, and ground support services are not available.

c. Obstructions to Flight. There are multiple towers around MCOLF Camp Davis:

(1) Two towers within 0.6 nm southeast of the departure end of Runway 23. One tower is 311 ft. MSL and the other is 364 ft. MSL.

(2) One tower is three nm due east of Camp Davis at 1043 ft. MSL (has extensive support cable network).

(3) One tower is six nm due east of Camp Davis at 829 ft. MSL (has extensive support cable network).

(4) One tower is 0.7 nm SSE of the departure end of 19 at 300 ft. MSL.

d. Noise Abatement/Avoidance Areas

(1) Pilots shall avoid over flight of residences and livestock containment areas in the vicinity of Camp Davis and shall adhere to rules of the road (right side) along U.S. Highway 17 when transiting between MCAS New River and MCOLF Camp Davis (Avoid over flight of Dixon Middle and High Schools by 1/2 mile horizontal and 1000 ft. vertical).

(2) Pilots entering or departing Camp Davis shall remain north and west of U.S. Highway 17 when within a three nm radius of Camp Davis to avoid civilian air traffic conflicts and for noise abatement over the town of Holly Ridge. NOTAMS will advise civilian traffic when PARAOPS are scheduled.

(3) When FARP operations occur at either Camp Davis North or South, aircraft using FARP will conform to normal entry and exit course rules for the runways in use to avoid noise complaintd from the town of Holly Ridge.

e. Course Rules

(1) The Camp Davis area includes all restricted airspace within the GSRA boundary south of grid line 25. This area is carved out of Restricted Area (Airspace) R-5304 for OLF air operations. BLACKBURN approval to operate in the Camp Davis area equals the procedural control needed to resolve conflict with Restricted Area (Airspace) R-5304 activities north of 25 grid line. In effect, from the Camp Davis operating area all aircrafts will check in and check out with BLACKBURN. Air Operations responsibilities will always revert to the aircrew. This resolves aircrew direct communication need with BLACKBURN once approved to operate in the Camp Davis area. Conversely, if flight activities require transit north of the 25 grid line where shooting occurs, BLACKBURN and aircrew must maintain direct communication. Monitoring BLACKBURN frequency is encouraged for situational awareness of inbound and outbound traffic while operating in the Camp Davis area.

(2) Pilots shall remain clear of the Camp Davis area unless intending to enter for training purposes.

(3) Pilots intending to operate at Camp Davis shall check-in with BLACKBURN for approval into and out of the Camp Davis area 233.8 (UHF). Pilots will also check-in and monitor traffic on OLF Common on 322.1 (UHF).

(4) The Camp Davis operating area is sub-divided into two areas by an imaginary line drawn from Highway 17 to the tower southeast of the approach end of Runway 01. Sub Area Camp Davis North includes Runways 1/19 and sub-area Camp Davis South includes Runways 5/23. Aircraft shall not cross the dividing line. Pilots desiring to change sub-areas shall depart and re-enter in accordance with paragraphs 17e(4)f through 17e(4)(i) below. Pilots conducting external operations or Confined Area Landings in TLZ Phoenix need to ensure they remain clear of the Camp Davis South (Runway 5/23) pattern and maintaining a pattern west of the 66 North/South grid line to remain clear of the Camp Davis North pattern.

f. Entry Procedures. When approved to enter the Camp Davis area by BLACKBURN, pilots shall switch to and monitor OLF Common Frequency 322.1 (UHF) for traffic deconfliction. This applies to MV-22s in CONV mode. Aircraft already on station will respond to the inbound traffic call with their current location and pattern parameters.

(1) **MV-22s/tiltrotors** in APLN mode shall enter the Camp Davis area from a one mile IP either from the NE CP Hotel, SE CP Tango, or SW CP Sierra at 1500 ft. AGL, as depicted on Figure 4-3. Pilots shall announce their intentions for entering at the IP on OLF Common, and also subsequent pattern altitude (300-500 ft. AGL). Aircrews already on station will exchange operating parameters with arriving traffic. **Helicopters** (MV-22s in CONV mode) shall enter the Camp Davis area from a one mile IP either from the NE CP Hotel, SE CP Tango, or SW CP Sierra at 700 ft. AGL, as depicted on Figure 4-3. Pilots shall announce their intentions for entering at the IP on OLF Common, and also subsequent pattern altitude (300-500 ft. AGL). Aircrews already on-station will exchange operating parameters with arriving traffic.

(2) Runway 19 Pattern (Davis North)

(a) **Tiltrotors** enter the pattern for Runway 19 via the CP Hotel or Tango, overfly the runway at 1500 ft. AGL and announce the intended turn (see Figure 4-3). Execute a descending left turn to 1000 ft. setting up a wide left downwind, maintaining 1000 ft. AGL until midfield and then begin a descent to pattern altitude. If entering from the CP Sierra, maintain 1500 ft. AGL and one nm north of LZ Phoenix until on extended centerline for over flight of the runway. Overfly the runway at 1500 ft. and execute a descending left turn to 1000 ft. setting up a wide left downwind, maintaining 1000 ft. AGL until midfield and then begin a descent to pattern altitude.

(b) **Helicopters** (MV-22s in CONV mode) enter the pattern for Runway 19 via the CP Hotel or Tango, overfly the runway at 700 ft. AGL and announce the intended turn (see Figure 4-3). Maintain 700 ft. setting up a wide left downwind, maintaining 700 ft. AGL until midfield and then begin a descent to pattern altitude. If entering from the CP Sierra, maintain 700 ft. AGL and one nm north of LZ Phoenix until on extended centerline for over flight of the runway. Overfly the runway at 700 ft. and execute level left turn setting up a wide left downwind, maintaining 700 ft. AGL until midfield and then begin a descent to pattern altitude.

(3) Runway 01 Pattern (Davis North)

(a) **Tiltrotors** enter the pattern for Runway 01 via CPs Hotel or Tango at 1500 ft. and announce entering the downwind from a 45 degree intercept at 1500 ft. AGL (see Figure 4-3). Fly a wide right downwind descending to 1000 ft. AGL until the midfield and then begin a descent to pattern altitude. If entering from the CP Sierra maintain 1500 ft. AGL and one nm north of LZ Phoenix until on right downwind. Fly a wide right downwind descending to 1000 ft. AGL until the midfield and then begin a descent to pattern altitude.

(b) **Helicopters** (MV-22s in CONV mode) enter the pattern for Runway 01 via CPs Hotel or Tango at 700 ft. and announce entering the downwind from a 45 degree intercept at 700 ft. AGL (see Figure 4-3). Fly a wide right downwind until the midfield and then begin a descent to pattern altitude. If entering from the CP Sierra maintain 700 ft. AGL and one nm north of LZ Phoenix until on right downwind. Fly a wide right downwind maintaining 700 ft. AGL until the midfield and then begin a descent to pattern altitude.

(4) Runway 23 Pattern (Davis South)

(a) **Tiltrotors** enter the pattern for Runway 23 via CP Sierra at 1500 ft. and announce entering downwind (see Figure 4-3). Fly a wide downwind maintaining 1500 ft. AGL until midfield and then begin a descent to pattern altitude. If entering from CPs Hotel or Tango, maintain 1500 ft. AGL and one nm north of departure end of Runway 01 until established on downwind. Fly a wide downwind maintaining 1500 ft. AGL until midfield and then begin a descent to pattern altitude.

(b) **Helicopters** (MV-22s in CONV mode) enter the pattern for Runway 23 via CP Sierra at 700 ft. and announce entering downwind (see Figure 4-3). Fly a wide downwind maintaining 700 ft. AGL until midfield and then begin a descent to pattern altitude. If entering from CPs Hotel or Tango, maintain 700 ft. AGL and one nm north of departure end of Runway 01 until established on downwind. Fly a wide

downwind maintaining 700 ft. AGL until midfield and then begin a descent to pattern altitude.

(5) Runway 05 Pattern (Davis South)

(a) **Tiltrotors** enter the pattern for Runway 05 via the CP Sierra, overflying the runway at 1500 ft. AGL and announce the intended turn (see Figure 4-3). Execute a level left turn to set up a wide left downwind maintaining 1500 ft. AGL until midfield and then begin a descent to pattern altitude. If entering from the CPs Hotel or Tango, maintain 1500 ft. AGL and one nm north of departure end of Runway 01 and TLZ Phoenix until on extended centerline. Overfly the runway at 1500 ft. AGL and announce the intended turn (see Figure 4-3). Execute a level left turn to set up a wide left downwind maintaining 1500 ft. AGL until midfield and then begin a descent to pattern altitude.

(b) **Helicopters** (MV-22s in CONV mode) enter the pattern for Runway 05 via the CP Sierra, overflying the runway at 700 ft. AGL and announce the intended turn (see Figure 4-3). Execute a level left turn to set up a wide left downwind maintaining 700 ft. AGL until midfield and then begin a descent to pattern altitude. If entering from the CPs Hotel or Tango, maintain 700 ft. AGL and one nm north of departure end of Runway 01 and TLZ Phoenix until on extended centerline. Overfly the runway at 700 ft. AGL and announce the intended turn (see Figure 4-3). Execute a level left turn to set up a wide left downwind maintaining 700 ft. AGL until midfield and then begin a descent to pattern altitude.

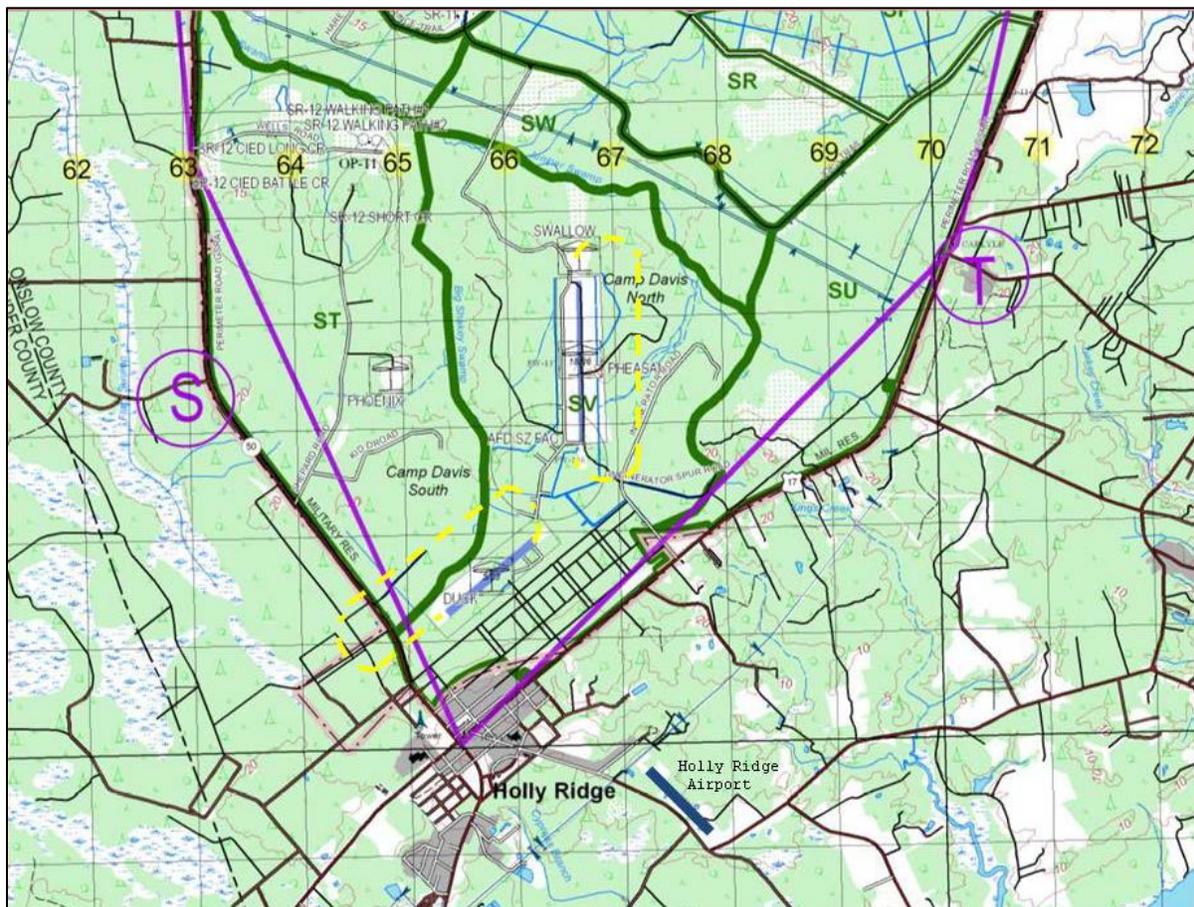


Figure 4-3.--Camp Davis Entry Points and Landing Patterns

g. Optional Tiltrotor Entry Procedures

(1) When approved to enter the Camp Davis area by BLACKBURN, pilots shall switch to and monitor OLF Common (frequency 322.1 UHF) for traffic deconfliction. Aircraft already on station will respond to the inbound traffic call with their current location and pattern parameters.

(2) Pilots shall enter the Camp Davis area from CP Tango or a three nm extended runway centerline for Runway 05 (See Figure 4-3). Prior to entry pilots shall announce their intentions at the one mile initial point (IP) either from the NE CP Hotel, SE CP Tango, or SW CP Sierra on OLF common.

(a) Over-head Break

1. Overfly runway at 1500 ft. AGL and announce the intended break.

2. Execute a level break.

3. Descend on downwind to arrive at the 180 degree position at 1000 ft, one nm abeam.

(b) Downwind Entry

1. Maintain 1500 ft. AGL until abeam the upwind numbers.

2. Descend to join the desired traffic pattern. Tiltrotor aircraft will descend to 1000 ft. AGL on the downwind leg.

h. Departure Procedures

(1) Pilots of departing helicopters shall maintain 500 ft. AGL until clear of the Camp Davis area. Departing tiltrotor traffic will maintain a minimum of 1,000 ft. AGL until clear of the Camp Davis area.

(2) Runway 05 Departure (Davis South). Pilots departing Runway 05 shall announce their intent to depart prior to reaching the upwind end and depart toward the northwest out of the crosswind turn remaining clear of TLZ Phoenix.

(3) Runway 23 Departure (Davis South). Pilots departing Runway 23 shall announce the intent to depart prior to reaching the upwind end of the runway and depart maintaining runway heading until outside the Camp Davis area.

(4) Runway 01 Departure (Davis North). Pilots departing Runway 01 shall announce their intent to depart prior to reaching the upwind end and depart toward the east out of the crosswind turn. Pilots shall maneuver their aircraft to remain west of Highway 17 until two miles from Camp Davis.

(5) Runway 19 Departure (Davis North). Pilots departing Runway 19 shall announce their intent to depart prior to reaching the upwind end and depart toward the east out of the crosswind turn.

(6) Pilots shall report the number of operations conducted to BLACKBURN upon departing Camp Davis area.

i. Traffic Pattern

(1) Pattern Altitude. Pattern altitude for all runways is 500 ft. AGL for helicopter and MV-22 CONV and 1,000 ft. AGL for MV-22 APLN unless a different altitude is required and broadcast. Pattern altitude for CALs is 300 ft. AGL. Pattern altitude for a Tactical Approach is from 300-500 ft. AGL. Intent to deviate from pattern

altitude shall be broadcasted on OLF common prior to deviation from normal pattern altitude.

(2) Pilots operating from Runways 05/19 shall make left hand traffic.

(3) Pilots operating from Runways 23/01 shall make right hand traffic.

(4) Pilots shall execute the upwind turn when reaching 200 ft. AGL or at the departure end of the runway whichever comes first. Pilots shall maneuver their aircraft so as to not cross the line dividing Camp Davis North and South.

(5) Low work is restricted to the upwind one third of the runway in use.

(6) No more than four aircraft are permitted in each runway traffic pattern. No more than eight aircraft shall operate at Camp Davis area at one time. This applies to aircraft intending to conduct CALs, Tactical Approaches, and the Emergency Landing Pattern (ELP). Intent to change traffic pattern will be broadcast via OLF Common. Course rules changes must be agreed to by all aircraft operating there.

(7) MV-22s conducting ELPs in the Camp Davis area will comply with the following procedures:

(a) Contact Cherry Point Approach or New River Arrival Control for approval to conduct ELP approaches.

(b) ELPs shall not be conducted to the same runway as other traffic in the pattern.

(c) Have positive two-way communication with other traffic in the pattern.

(d) Make the appropriate "High key at 9,000 ft.," "Low key at 4,500 ft." and "Base at 2,300 ft." radio calls over OLF Common.

(e) If aircraft conducting the ELP loses sight of other aircraft in the pattern, an immediate wave off will be executed, turning away from the last know position of the traffic.

j. Tactical Approaches (straight-in, 90 and 180 degree offsets) will be conducted between the airfield and five nm, from 300 to 500 ft. AGL. The objective of a MV-22 Tactical Approach is to efficiently transition an aircraft or a flight from the enroute ingress phase [220 KCAS] to the landing phase (150 ft. AGL/50 Knots Ground Speed [KGS] at 0.2 nm.) of the mission. Tactical Approaches provide training on how,

when, and where to convert and configure the aircraft or flight for landing following precise navigation to a predetermined Conversion Point (CVP). The CVP is a designated point relative to the intended landing area where the conversion is initiated. The initiation of the conversion begins with the reduction in power with intent for landing. Each Tactical Approach type will result in the aircraft or flight being established in a familiar flight profile on short final (e.g., 150 ft. AGL/50 KGS at 0.2 nm.) to intercept the glide slope to a runway or TLZ.

k. Ground Training. All units desiring to use any portion of, or exclusive use of MCOLF Camp Davis for ground operations, must submit a SRR from 14-45 working days prior to the requested date to the CG MCIEAST-MCB CAMLEJ (G-3/5 RCD). Requesting unit will coordinate with MAG-26/MAG-29 operations and II MEF G-7 to deconflict requirements and approve/disapprove SRR accordingly. MAG-26 and MAG-29 must send deconfliction emails to Range Scheduling. SRR must indicate exactly the type of training requested. Using units may also be required to submit a FERAIR to EMD depending on the type of training activities being done on the ground.

18. MCOLF Oak Grove

a. General. The MCOLF Oak Grove airstrip (35002'N/77015'W, grid 18STD 946-779) is part of a 962 acre training and recreational facility located near the town of Pollocksville, North Carolina. The FAA identifier is 13NC and the airfield elevation is 27 ft. MSL. The MCOLF Oak Grove operating area consists of three separate runways; runways 05/23, 01/19, and 09/27. Operable runway 05/23 is 4000 ft. long by 150 ft. wide. Operable runway 01/19 is 4200 ft. long by 150 ft. wide. Old runway 09/27 is available for ground taxi/hover/low work only. The northern apex joining the two operable runways is available for ground taxi/hover/low work as well (see Figure 4-4 for avoid areas when utilizing the northern apex). TLZ Bat (18S TD 942 781) is midfield between the runways and TLZ Emu (18S TD 930 774) lies 800 m SW of Runway 5/23. Fixed-wing and UAS operations are not authorized at Oak Grove. An MOA between Camp Lejeune and the Pollocksville Fire and Rescue Department exist regarding medical assistance, hazardous spills, and firefighting assistance. Calling 911 in the Oak Grove Area will connect the unit with them.



Figure 4-4.--Oak Grove Avoidance and Prohibited Areas

b. Scheduling. The CG MCIEAST-MCB CAMLEJ (G-3/5 RCD) is the scheduling agent for tactical operations at MCOLF Oak Grove.

(1) 2d MAW units, specifically MAG-26 and MAG-29, are the primary users of Oak Grove runways, TLZ Bat and TLZ Emu. The only exceptions are prioritized Joint, Combined, or MAGTF Exercises.

(2) All aviation air units desiring to schedule any portion of MCOLF Oak Grove must submit a TAR via RFMSS 2-90 working days prior to the requested training date. Requesting units are responsible for meeting and deconflicting all 2d MAW requirements before scheduling the event. TARs must indicate type of training requested. MAG-26 and MAG-29 will send a deconfliction e-mail approving use to Range Control, Range Scheduling Section.

(3) Any unit requiring exclusive use of MCOLF Oak Grove must ensure all conflicts are deconflicted and the exclusive use requirement is highlighted and fully justified in their TAR.

(4) MCOLF Oak Grove is an uncontrolled airstrip. Pilots are responsible to see-and-avoid other aircraft and for strict adherence to the course rules. Airport ATC, ARFF, and ground support services are not available. However, radar ATC services are available (see paragraph 18c(4) below).

(5) All squadrons shall consult the Camp Lejeune Range Control daily RFWO during flight planning to avoid conflicts. Unscheduled helicopter and tiltrotor operations into MCOLF Oak Grove or TLZs Bat and Emu can still be deconflicted and accomplished through communications with BLACKBURN. Currently Communications with aircraft on the ground and in the pattern at Oak Grove is difficult. Aircraft shall check in with BLACKBURN on UHF 233.8 while enroute to Oak Grove and announce operating intentions; BLACKBURN will advise of any other aircraft or ground operations. Once authorization has been granted by BLACKBURN and the pilot has ensured by cold pass, the runway or TLZ requested is not occupied, training can be conducted.

(6) Upon departure from MCOLF Oak Grove, aircraft shall notify BLACKBURN of completion of training and what training was conducted (i.e., number of aircraft, number of landings, etc.).

(7) The Camp Lejeune NOTAMS will include the scheduling and maintenance status of MCOLF Oak Grove.

(8) Obstructions to Flight. There are two tall transmission towers northwest of Oak Grove. Both towers have an extensive support cable network. One tower (35° 03'N/77° 22'W) is 985 ft. MSL and located 5.5 nm west-northwest of the airfield. The other tower (35° 06'N/77° 21'W) is 2035 ft. MSL and located 6.5 nm from Oak Grove. Several other 300 ft. MSL towers are also present 3-5 miles south of the airfield.

(9) Noise Abatement and Avoidance Areas. Pilots shall avoid over flight of residences and livestock containment areas and shall remain clear of the town of Pollocksville (3 miles SE). Aircraft shall avoid Pollocksville (35° 00'28"N, 077° 13'24"W or grid 18STD 97397582) by one nautical mile (nm) laterally or by flying above the town at 1,000 ft. AGL.

c. Course Rules. Oak Grove is an unmanned and uncontrolled airstrip. Pilots operating at MCOLF Oak Grove are responsible to see and avoid other aircraft and strict adherence to the course rules. Call BLACKBURN prior to entering the five nm operating radius that exists around the Oak Grove field boundary. In effect, once inside the Oak Grove area, air operation responsibilities revert to aircrews. This resolves aircrew direct communication need with BLACKBURN once approved to operate in the Oak Grove area. Monitoring BLACKBURN frequency is encouraged for situational awareness of inbound and outbound traffic while operating in the Oak Grove area.

(1) Operational Limitations. Fixed-wing operations are not authorized. Tiltrotor airplane mode operations are authorized.

(2) Pilots shall remain clear of the Oak Grove area unless intending to enter for training purposes.

(3) Pilots desiring to change runways shall depart and re-enter the operating area in accordance with paragraphs 184(d) through 184(g) below.

(4) Radar advisory services are required when operating above 1,500 ft. AGL to and from Oak Grove. To mitigate mid-air collisions risks between the Oak Grove airfield traffic and V-56 airway traffic, all aircraft operations at Oak Grove above 1,500 ft. AGL shall be conducted using ATC radar advisory services. Cherry Point Approach Control West frequencies are 119.75 and 377.175.

d. Helicopter Entry Procedures. Pilots shall maneuver their aircraft to remain clear of the Oak Grove area unless intending to enter for training purposes. Pilots will check-in on and monitor traffic on OLF Common on 322.1 (UHF). Aircraft already on station will respond to the inbound traffic call with their current location and pattern parameters.



Figure 4-5.--Oak Grove TLZs and Landing Patterns

(1) Pilots shall enter the Oak Grove area at 700 ft. and proceed to the appropriate one nm IP (see Figure 4-5). The IP for Runway 23 is one nm SW of the field and offset west of runway centerline. The IP for Runway 19 is one nm south of the field and offset east of runway centerline. The IP for Runways 05/01 is one nm due south of the field and centered between the two runways. Pilots shall announce their intentions at the IP on OLF Common. This applies to MV-22 in CONV mode. Aircraft already on-station will respond to the inbound traffic call with their current location and pattern parameters.

(2) Pilots shall proceed at 700 ft. AGL and announce the mid-field entry, or downwind entry.

(3) For entry to Runways 05/01, pilots shall split the two runways at 700 ft. and execute a left or right level turn at the departure end. This will allow for a wide 180 degree position for Runways 05/01. Pilots will then descend to join the traffic pattern.  
**BE COGNIZANT OF TRAFFIC IN LZ BAT.**

(4) For a downwind entry for Runways 19/23, maintain 700 ft. AGL until abeam the midfield, then descend to join the desired traffic pattern.

e. Tiltrotor Entry Procedures. Pilots shall maneuver their aircraft to remain clear of the Oak Grove area unless intending to enter for training purposes. Pilots intending to operate at Oak Grove shall check-in with BLACKBURN for approval into and out of the Oak Grove area on 233.8 (UHF). Pilots will also check-in and monitor traffic OLF Common, 322.1 (UHF). Aircraft already on station will respond to the inbound traffic call with their current location and pattern parameters.

(1) Pilots shall enter the Oak Grove area and proceed to the appropriate three mile IP from the North or South. Pilots shall announce their intentions at the IP on OLF common. Aircraft already on station will respond to the inbound traffic call with their current location and pattern parameters.

(2) Pilots shall proceed at 1500 ft. AGL and announce the Over Head break or Downwind Entry.

(a) Over Head Break

1. Overfly runway at 1500 ft. AGL and announce the intended break.

2. Execute a level break.

3. Descend on downwind to arrive at the 180 degree position at 1000 ft, one nm abeam.

(b) Downwind Entry

1. Maintain 1500 ft. AGL until abeam the upwind numbers.

2. Descend to join the desired traffic pattern. Tiltrotor aircraft will descend to 1000 ft. AGL on the downwind leg.

f. Departure Procedures

(1) Pilots departing Runways 05/01 shall make the normal crosswind turn, announce the intent to depart, and depart the operating area from the downwind leg to the southwest and south respectively.

(2) Pilots departing Runways 19/23 shall announce the intent to depart prior to reaching the upwind end of the runway and depart by maintaining runway heading until outside the operating area.

(3) Pilots of departing aircraft shall maintain 500 ft. AGL until outside the operating area.

(4) Pilots shall report the number of aircraft operations conducted to BLACKBURN upon departing Oak Grove.

g. Traffic Patterns

(1) Pattern Altitude. Pattern altitude for all runways is 500 ft. AGL for helicopter and MV-22 CONV, and 1000 ft. AGL for MV-22 APLN (see Figure 4-5). Intent to deviate from pattern altitude shall be broadcasted on OLF Common prior to deviation from normal pattern altitude.

(2) Runway 09/27 is authorized for ground taxi, hover, and low work. Utilization of this runway for pattern work is approved if significant winds restrict the use of the other runways. Patterns will be right or left as deconflicted with other traffic in the area.

(3) Pilots using Runways 05 and 19 shall make left hand traffic. See Figure 4-5.

(4) Pilots using Runways 23 and 01 shall make right hand traffic. See Figure 4-5.

(5) Pilots shall execute the upwind turn at 200 ft. AGL or at the end of the runway, whichever comes first. Pilots shall maneuver their aircraft not to cross the imaginary line dividing the field.

(6) No more than four aircraft are allowed in each runway traffic pattern. No more than eight aircraft shall operate at Oak Grove Area at one time. This applies to aircraft intending to conduct CALs, Tactical Approaches, and the Emergency Landing Pattern (ELP).

h. Intent to deviate from course rules will be broadcast via OLF Common. This also applies to MV-22 aircraft intending to conduct tactical approaches and ELPs. Course rules changes must be agreed to by all aircraft operating in the area.

i. Tactical Approaches (straight-in, 90 and 180 degree offsets) will be conducted between the airfield and five nm, from 300 to 500 ft. AGL. The objective of a MV-22 Tactical Approach is to efficiently transition an aircraft or a flight from the enroute ingress phase [220 KCAS] to the landing phase (150 ft. AGL/50 knots ground speed [KGS] at 0.2 nm.). Tactical Approaches provide training on how, when, and where to convert and configure the aircraft or flight for landing following precise navigation to a predetermined CVP. The CVP is a designated point relative to the intended landing area where the conversion is initiated. The initiation of the conversion begins with the reduction in power with intent for landing. Each Tactical Approach type will result in the aircraft or flight being established in a familiar flight profile on short final (e.g., 150 ft. AGL/50 KGS at 0.2 nm) to intercept the glide slope to a runway or TLZ.

j. MV-22s conducting ELPs in the Oak Grove area will comply with the following procedures:

(1) Contact Cherry Point ATC prior to commencing climb for ELPs to ensure airspace is clear of traffic.

(2) ELPs shall not be conducted to the same runway as other traffic in the pattern.

(3) Have positive two-way communication with other traffic in the pattern.

(4) Make the appropriate "High Key" at 9000 ft., "Low Key" at 4,500 ft. and "Base" at 2,300 ft. radio call over OLF Common.

(5) If aircraft conducting the ELP lose sight of other aircraft in the pattern, an immediate wave off will be executed, turning away from the last know position of the traffic.

k. Ground Training. The CG MCIEAST-MCB CAMLEJ (G-3/5 RCD) is the scheduling agent for ground tactical operations at Oak Grove.

(1) Limited areas are available for ground training. All units desiring to use any portion of or exclusive use of MCOLF Oak Grove for ground operations must submit a SRR from 14-45 working days

prior to the requested date to the CG MCIEAST-MCB CAMLEJ (G-3/5 RCD). Requesting units will coordinate with MAG-26/MAG-29 operations and II MEF G-7 to deconflict with 2d MAW requirements and approve/disapprove SRR accordingly. MAG-26 and MAG-29 will send a deconfliction email approving use to Range Scheduling. SRR must indicate exactly the type of training requested. The written request must contain the following:

- (a) Name, rank, and phone number of the unit CO;
  - (b) Name, rank, and phone number of principle point of contact for the unit, officer or SNCO;
  - (c) Date and time requested, to include dates for advance, main, and rear parties arrival/departures;
  - (d) Specific areas requested;
  - (e) Number of personnel involved;
  - (f) The scope and nature of training to be conducted and unique requirement, including any aircraft operations associated with training; and
  - (g) A signed copy of Appendix K of this Order by the ROIC.
- (2) The "Check In" and "Check Out" procedures are as follows.
- (a) The training unit meets with maintenance crew at Oak Grove to discuss the training to take place and the do's and don'ts at Oak Grove;
  - (b) The training unit signs the Statement of Understanding (Appendix K of this Order, Check-In Sheet);
  - (c) The training unit brings the signed Statement of Understanding to Building 54 (scheduling) and checks out the TAs; scheduling issues a key to Oak Grove (Gate 1) and a red range flag;
  - (d) The training unit conducts training at Oak Grove;
  - (e) At the conclusion of training maintenance crew signs the Statement of Understanding (Check-Out Sheet) clearing the unit to depart Oak Grove; and
  - (f) The training unit brings the signed Statement of Understanding, range flag, and the key back to scheduling ending the training evolution.

(3) Units are encouraged to coordinate informally with MAG-26 and MAG-29 S-3 and Camp Lejeune RCD prior to submitting an SRR.

(4) Current scheduling information is available in RFMSS.

(5) Units requesting to establish a FARP must first coordinate with Camp Lejeune EMD to determine if an environmental review is required. Follow this coordination with an SRR.

(6) Units approved for exclusive use of MCOLF Oak Grove shall conduct a Face-to-Face brief with Oak Grove Maintenance Crew prior to proceeding with training. The Oak Grove Maintenance Crew has an extensive working knowledge of environmental considerations and ground training usage at MCOLF Oak Grove, therefore they have the final say on operations at MCOLF Oak Grove.

1. Recreational Activities

(1) Active Duty, retired military, their dependents, and Federal government employees are authorized to utilize the recreational facilities at MCOLF Oak Grove.

(2) All personnel entering and leaving Oak Grove for recreational purposes will travel through Gate 2 and will register in the appropriate log book at the gate house. All personnel will comply with instructions posted at the check-in/out station and in Appendix L of this Order.

(3) Hunting is permitted only on weekends and holidays if a unit is not training. Hunting is only permitted in TAs OA, OB, OC, OD, OE, and OF. Hunting is prohibited on the airfield, or in Recreational Areas 1 and 2. Hunters will call the CLEO's phone messaging system at (910) 451-3794 for availability of hunting.

(4) Gathering fire wood will be permitted only on weekends and holidays if a unit is not training. Fire wood gathering will be limited to downed trees and branches. Live trees and vegetation will not be disturbed.

(5) Requests for group recreational activities will be sent to the CG MCIEAST-MCB CAMLEJ (G-3/5).

(6) Recreational activities will not be authorized during military training operations.

(7) Camping at Oak Grove is not authorized (Closed) during Deer (Dates TBD during September to 1 January of each year) and Turkey (Dates to be determined during April to May of each year) for the NC hunting seasons.

19. Outlying Field Turnbull Creek. The RDMD has secured License of Agreement (LOAs) for the use of Turnbull Creek Airfield for MAG-26 (MV-22B Squadrons Only). This OLF is required to be scheduled in RFMSS per the LOAs. Contact the RDMD for copies of the license/letters/rules. All aircrafts using Turnbull Creek must check in and out with BLACKBURN and report the numbers of landings/take offs.

Chapter 5

Range Policies

1. General

a. Safety regulations for firing on live-fire ranges and training facilities are contained within this Order, Range Cards, and the reference (a).

b. All ranges and firing positions are "Off-Limits" to all personnel and units except when scheduled properly in RFMSS, listed in the RFWO (AMHS Message) and signed for by the using unit's ROIC or when authorized by the RCO. Requests to conduct live firing on ranges and GPs/MPs/training facilities/ETAs will be submitted in accordance with Chapter 3 of this Order.

c. When any live-fire Range, ETA, Artillery GP, MP, OP, or any other training facility is in a "HOT" status, all personnel must be wearing Personal Protective Equipment (Level 0, 1, 2, 3) i.e., helmets, body armor, hearing, and eye protection with sleeves down unless specified otherwise in this Order or in the Range Cards. Units conducting small arms, standard BZO/Zeroing live-fire from a static position only are not required to wear helmets and body armor if pre-arranged with Range Control via e-mail. Requests to deviate from this policy must be submitted via the unit's chain of command, including the first General Officer in the chain of command, to the CG MCIEAST-MCB CAMLEJ (G-3/5), at least 30 days in advance of the scheduled training event.

d. Medical personnel (Unit assigned Corpsman/Medic or approved civilian EMT) that are properly trained with the proper first-aid equipment will be present on all ranges, training areas (RTAs), and training facilities when training is taking place. A safety vehicle (Government Vehicle) must be located on all RTAs and facilities during training. Vehicle operators will be familiar with the primary routes to the nearest medical facility. Any military or GSA vehicle capable of transporting a casualty or casualties may be utilized as the safety vehicle. The presence of at least one unit assigned Corpsman/Medic or other military medical equivalent and one Government safety vehicle is the minimum requirement. Use of POVs as safety vehicles for training events is not authorized. Government Rental Vehicles can be used if assigned/issued a Range Control POV Pass.

e. All directions of fire are listed in magnetic azimuths. Direction of fire must remain within limits of the approved SDZ at all times and at distances up to and including the maximum range of allowable ammunition/charge (NEW) restrictions for that live-fire

range/ETA. All live-fire and effects of live-fire will be at all times in the approved SDZ/impact area for the range/ETA, per this Order and the assigned Range Card for that scheduled live-fire range.

f. The RCO is authorized to permit deviations from this Order with regards to allowable weapons and ammunition, when such deviations are for a specific purpose to enhance training and within established range safety criteria. A SRR must be submitted within 10 working days for this training requirement per Appendix E of this Order.

g. Any movement on a static firing range beyond the firing line or on a maneuver ranges beyond the limits designated into an impact area must be approved by the RCO and Base EOD.

h. ROIC and RSO must remain alert to low-flying aircraft at all times while conducting live-fire. When low-flying aircraft are observed approaching the limits of any range/GP/MP/ETA, the ROIC/RSO of firing unit will command "CEASE-FIRE" until the aircraft clears the limits of the range/gun/mortar target line. Unit must contact BLACKBURN immediately with the type of aircraft and tail number of the aircraft that violated the SDZ if possible. These procedures also apply to all GPs, MPs, and ETAs aboard Camp Lejeune.

i. Chapter 1 and 5 of this Order governs range requirements for recreational shooting civilian weapons and must be approved by the RCO via a formal request 30 days in advance.

j. Requests to fire anything above small arms (.50 cal. and below) beyond 2400 will be submitted via the chain of command using a naval letter format to the CG MCIEAST-MCB CAMLEJ (G-3/5) within 30 working days of the scheduled live-fire event asking to deviate from the Quiet Hour policy in Chapter 1 of this Order.

k. Before conducting live-fire the ROIC/RSO will inspect weapons and ammunition for serviceability and inspect each weapon to ensure there is no obstruction in the bore before firing. The ROIC must plan for or verify that all weapons are zeroed. Units must ensure all weapons are cleared onto and off the range through a designated control point and all weapons are pointing downrange at all times. The using unit must have a training progression adherence. As an example "Zero, Static, Movement, Maneuver, Day, and Night."

l. No running other than what is required for that scheduled live-fire training event (Fire and Maneuver/Fire and Movement Ranges) or any horseplay is not permitted on any live-fire range.

m. Anyone observing an unsafe condition during the firing exercises **will** call "CEASE FIRE". When this command is given, it will be relayed immediately by all members. The ROIC/RSO will investigate the unsafe condition, take the necessary corrective action, and will

report the correction of the unsafe condition to the ROIC. The ROIC will resume firing when convinced that the RSO has corrected the unsafe condition.

## 2. Establishment of Ranges, Training Facilities

a. Only the CG MCIEAST-MCB CAMLEJ can establish live-fire ranges or training facilities. No other individual or organization will establish new ranges, training facilities, or alter existing ranges or training facilities except with prior approval of the CG MCIEAST-MCB CAMLEJ via the RCD and RDMD. This does not preclude units from placing suitable targets after being granted permission from Range Control on existing live-fire ranges within the approved SDZ/WDZ for that range to enhance the target array, assuming all safety precautions and regulations are observed and Base EOD support is provided if required. All unit-emplaced targets must be removed upon the completion of training.

b. Recommendations to improve ranges and training facilities are invited, and shall be provided by formal letter to the CG MCIEAST-MCB CAMLEJ (G-3/5 RDMD), per reference (aa).

## 3. Modification of Ranges

a. Requests for minor modifications to facilities, such as fencing, minor erosion control efforts, range road improvements, vegetation management, and small construction/repair projects shall be submitted to the Director, RDMD.

b. Project submission must include complete justification based on a training requirement/training standard, (T&R Manuals, ITS, POI, or METL) duration and frequency of use projections. A submission will address the following:

- (1) Training requirements;
- (2) Current situation;
- (3) Impacts if known;
- (4) Consideration of alternatives;
- (5) Analysis of deficiency.

c. New ranges or major range alterations require review by the Environmental Impact Working Group for environmental impacts, per Chapter 12 of reference (s) and reference (aa).

4. Maintenance and Operation of Ranges

a. Maintenance of Ranges. The maintenance of RTAs and training facilities will be accomplished by the Director, RDMD. No other unit or individual is authorized to perform maintenance on any RTA or training facility unless the work is first approved by the CG MCIEAST-MCB CAMLEJ, via the AC/S, G-3/5 or Director, RDMD.

b. Units (ROIC/RSO) will report all range maintenance issues and other problems to Range Control/Range Inspectors and or by filling out the ICE comment range report at the conclusion of training. Other requests for repairs of existing training complex facilities can be submitted by e-mail memorandum to the Director, RCD/Director, RDMD.

c. The ROIC/RSO of the unit at RTAs and training facilities is responsible for all damage incurred during the scheduled period. If damage to or poor police call of a RTA is observed upon arrival, the ROIC/RSO must notify BLACKBURN/Range Inspectors immediately and note such damage/police problems on the Range Report to be turned into Range Control. Failure to report damage/poor police problems will be considered as having assumed responsibilities for all damages/poor police problems by the using unit.

d. Operation of Ranges

(1) All RTAs and training facilities aboard this Installation are assigned to the CG MCIEAST-MCB CAMLEJ. Units that are primary users of certain ranges inherit no title to those ranges and possess no authority to modify nomenclature, purpose, or design of any range or facility without prior approval as listed in this Order.

(2) Range Control/Range Development personnel are authorized access to all RTAs and training facilities for the purpose of inspection, operation, safety, HAZMAT, or required maintenance at any time. RCD/RDMD personnel will not disrupt unit training in the performance of these duties unless coordinated with the ROIC/RSO; training units will not interfere with those personnel as they conduct normal inspections/safety surveys. Range Inspectors will conduct random inspections of RTAs and training facilities, and all structures assigned during their daily operations to verify strict adherence to all range safety regulations, other MCIEAST-MCB CAMLEJ orders and policies, and report any and all violations to the RCO as required /directed.

(3) The MCIEAST-MCB CAMLEJ Ammunition and Explosives Safety Officer (AESO) and other designated personnel will be granted access to all ranges for explosives/ammunition safety matters to ensure units are abiding by all required/approved regulations regarding the safe transportation and storage of A&E. Units must notify the AESO at (910) 451-6281 when they intend to store/stage ammunition on a range

for more than 48 hours. The temporary storage of A&E for more than five consecutive days requires approval, in writing, from the CG MCIEAST-MCB CAMLEJ.

5. Authorization to Fire. A RFWO message will be produced daily by the RCOO and promulgated by a AHMS or Naval message. No firing will be conducted unless it is specifically listed in the RFWO message, or as authorized by the RCO/RCOO. In addition, authorization to fire must be obtained from BLACKBURN immediately prior to firing. Procedures for requesting and scheduling RTAs and training facilities are contained in Chapter 3 of this Order.

6. Restrictions

a. Unauthorized persons are not allowed within any range complex. Civilians and military personnel not specifically scheduled to be on RTAs and facilities are not authorized. Unit-command-sponsored functions, which include civilian participation in training, may be requested through the unit's chain of command to the CG MCIEAST-MCB CAMLEJ (G-3/5). See Chapter 1 for additional guidance on requesting special events like Jane/John Wayne Days, a Day in their Boots Day, Warrior Night, Mess Night, or other special events which may include civilians. No personnel will enter the designated impact areas (G-10, K-2, or N-1/BT-3) without prior approval of the RCO and escorted by EOD. See Appendix B of this Order for additional guidance.

b. The use of all chemical ammunition/training devices will be in strict compliance with Chapter 6 of this Order, the Range Card for the Gas Chambers, and reference (ab).

c. Firing must conform to all airspace restrictions as contained in Chapter 4 and Appendix B of this Order.

d. Shotguns, Bows, and Crossbows are the only privately-owned weapons authorized on Camp Lejeune and only on the designated MCCA range (R-100 Skeet/Trap and Archery Range) and during stated times when MCCA personnel are operating these ranges. They are not allowed on any other live-fire ranges unless specifically authorized by the CG MCIEAST-MCB CAMLEJ via the AC/S, G-3/5 and the RCO by formal request via the unit's chain of command 30 days in advance of this special event. See reference (ac) for privately-owned weapons use while hunting. Shotguns, Muzzleloaders, Bows, and Crossbows are the only privately-owned weapons authorized on Camp Lejeune for hunting per reference (ac).

e. Transporting military weapons and military ammunition in POVs is not authorized aboard MCIEAST-MCB CAMLEJ.

f. Digging is not authorized on any live-fire range except what is required for the safe emplacement of the weapon system. All holes must be filled in after the training event. Unit must remove all sandbags used on the range. Digging is authorized on designated Mortar Positions if pre-arranged with Range Control and all mortar positions are filled back in/leveled out after the training event.

g. Warming fires are not authorized on any live-fire ranges, GPs, MPs, ETAs, or LZs. Warming fires may be granted by e-mail in TAs when authorized by Range Control and all requirements set forth in the warming fire checklist have been accomplished. A warming fire checklist will be provided on request from Range Control. A checklist can also be obtained from the Range Control website.

7. Off-Limits/Restricted Areas

a. The following sites are off-limits/restricted areas:

- (1) Posted endangered species/endangered plant areas;
- (2) Archaeological Sites;
- (3) Posted historical/cultural sites;
- (4) Impact Areas (G-10, K-2, N-1/BT-3 Brown's Island and North Onslow Beach);
- (5) Within 100 meters of an authorized recreation areas managed ponds;
- (6) Within 100 meters of a documented/known cemetery;
- (7) Installations Landfills (Current/Old);
- (8) RTAs, facilities, and Runways/Taxiways of Camp Davis North/South unless scheduled for and signed for;
- (9) R-100 MCCA Skeet/Trap/Archery Area to include the entire surface danger zone of this complex within the RA TA. Training is not authorized in those assigned areas;
- (10) Onslow Beach (EB TA) unless scheduled, Beach Checklist filled out and the beach is signed for by an SSgt or above with a valid/current issued ROIC/RSO Card. All sand dunes areas, turtle nesting sites, shore bird nesting areas are off-limits;
- (11) Borrow Pits, all construction sites;
- (12) Areas that have been reforested/re-seeded;

- (13) Electric Solar Panel Farms/Areas;
- (14) Within 100 meters of any fuel farm areas;
- (15) Residential Housing Areas;
- (16) HAZMAT Sites/Landfills;
- (17) Storm drains/retention ponds; and
- (18) Food plots/wildlife clearing areas.

b. Access to these areas and sites is prohibited at all times. Quiet enjoyment of property remains the right of those individuals who reside in the area. No training will be conducted within a 300 meter buffer zone of any residential structure not a part of the TAs, food plots, construction sites, outlying buildings, pastures, Installation boundary, or planted fields.

#### 8. Ranges and Firing Positions

a. Live-fire Ranges are described in detail in the Range Cards, which can be found on the Range Control website. All dud-producing ordnance must be fired into one of the two designated impact areas (G-10, K-2) as described in Appendix B of this Order. Dud-producing ordnance will not be fired into the N-1/BT-3 (Brown's Island) impact area. The only exceptions to this rule are ranges E-1, G-5, and G-7 that by SRR can shoot dud producing ordnance into the N-1/BT-3 impact area.

b. Vehicular and foot traffic approaches to ranges and impact areas will be secured by road guards, gates, or barriers during live-fire operations. Road Guard Maps will be provided at the time the range is checked out or can be obtained on the Range Control website. All road guards must be properly instructed in their duties at that position.

c. Firing may be conducted from alternate positions as long as such positions remain within the SDZ and all live-fire and the effects of live-fire are within that approved SDZ and meets all safety criteria set forth in reference (a), this Order, and the Range Cards. In such cases, a SRR, including reviewed and signed ORM worksheet, attached overlays illustrating the proposed SDZ and SOM, and safety plan will be provided to the CG MCIEAST-MCB CAMLEJ, via the RCO for approval 10 working days prior to the first date of the requested training per Appendix E.

d. Deviations from the reference (a) or this Order and Range Cards may be authorized for special circumstances. Requests for a deviation of these orders will follow the format sited in reference

(a) (Chapter 3, paragraph 3-1, 3-2, and 3-3). Such deviations must be approved via the unit's chain of command up to the CG MCIEAST-MCB CAMLEJ. All approvals of deviations require the signature of the CG MCIEAST-MCB CAMLEJ. Annual deviations/SRRs must be resubmitted for review/approval every year as directed in the approval letter. Requests/re-submissions for deviations of these orders must be submitted at least 30 days or more in advance before expiring.

e. Access to all RTAs and training facilities, including tank trails and perimeter gravel roads, is restricted to authorized personnel and scheduled in RFMSS events only. Units/individuals are not authorized to conduct any running, PT, and hikes/condition marches/biking unless scheduled properly. The use of POVs within the RTAs must be pre-approved and have an assigned a Range Control POV Pass. Violators can be cited if not corrected.

#### 9. Range Signs and Markers

a. The range signs, left and right lateral limit markers provided on all ranges, MPs, and GPs provide important safety information. If range signs are damaged/missing the using unit must report it immediately to BLACKBURN or to a Range Inspector.

b. Surveyed points are placed near the center of all firing lines, GPs, and MPs. Do not remove, destroy, cover-up any survey points.

c. Funding, fabrication, and installation of range signs and markers are the responsibilities of the RDMD.

d. Lateral Limits. Direct live-fire ranges include lateral limit markers. Lateral Limit Markers are not to be used as targets.

(1) Left Lateral Limit Marker. Four ft. by eight ft. or smaller black background with international orange diagonal stripes pointed inward to the right.

(2) Right Lateral Limit Marker. Four ft. by eight ft. or smaller black background with international orange diagonal stripes pointed inward to the left.

e. All range signs and markers are essential for safe and effective training and will not be removed or otherwise disturbed. Additional self-explanatory signs with specific instructions or precautionary measures will be posted on certain ranges as deemed necessary by the RCO.

10. Communications

a. Training units must maintain two means of communication between the unit and BLACKBURN (Range Control) for all training being conducted on this Installation. Radio is the primary means of communication with BLACKBURN (34.70 FM/233.8 Air). Range Control retransmission/repeater frequency is 40.10 for west side of the New River and 38.85 for the east side of New River. If a landline telephone is available on the range, it can be used as the secondary means of communication if working properly both ways. Cellular Phones are only authorized as the **alternate** means of communication with BLACKBURN after verifying that both links work/functional.

b. If a unit fails to maintain the required communications, BLACKBURN will place that unit in a "CHECK-FIRE" status until satisfactory communications are reestablished and maintained by that unit. If a unit cannot maintain satisfactory communications, BLACKBURN will place that unit "COLD" for the remainder of the day and will so notify the RCOO/RSO of the action taken.

c. The responsibility for proper communication with BLACKBURN rests with the unit, the unit commander, and the ROIC/RSO. Range Control will not issue communication gear (radios) to using units aboard Camp Lejeune. The Range Control frequency will "**NOT**" be used for unit administrative or tactical traffic.

d. Emergency Procedures. During any MEDEVAC/CASEVAC, all other units will be directed by BLACKBURN to suspend radio checks until the situation is resolved with the unit having the emergency/situation. All units will continue to monitor the range safety/control net as required. Training may continue unless BLACKBURN issues a "CHECK-FIRE" order to all other firing/training units. Units will render assistance as requested by BLACKBURN and the unit if required. Further guidance on MEDEVAC/CASEVAC can be found in Chapter 1 of this Order.

e. Units conducting non-live-fire in TAs must check in at the beginning of all training and at the completion of all training. Mandatory radio checks must be completed while in a TA, training facility when training is started and when completed and also at the following times at 0600, 1400, and 2200 daily while conducting non-live-fire training. Units are required to conduct radio checks with BLACKBURN, and must monitor the Range Control/BLACKBURN net, 34.70 FM, for safety purposes at all times. Simunitions (9mm/5.56mm SESAMS) training, all lasers training, and other high risk training are treated the same as live-fire training and radio checks are required every thirty minutes on the hour and the half-hour.

11. Safety Equipment

a. COs must conduct an ORM Assessment/Worksheet and implement the proper safety procedures to mitigate all safety concerns not addressed by higher authority, such as reference (a). Units are required to have a copy of the reviewed, signed, and approved ORM Worksheet onsite/on the range for that scheduled RTA or training facility for high-risk events.

b. A red range flag or red flashing lights which the using unit must provide (for night firing) must be displayed from range flag poles and light poles when the live-fire range goes "HOT". If any of these items are taken down, the unit will cease firing until they are replaced.

c. Red smoke grenades and red pyrotechnics will only be used as emergency signaling devices. These safety devices are not a requirement for live-fire training at Camp Lejeune but are highly recommended for live-fire and movement/maneuver type training events aboard Camp Lejeune.

d. All forward observers/tower guards and air sentries will use binoculars when observing airspace and navigable waters to include the ocean. At night; night vision devices will need to be on-hand and used by the using unit to ensure the SDZ/WDZ are clear.

12. Face-to-Face Briefs

a. The following events/ranges require a Face-to-Face brief with Range Control/BLACKBURN or the RSS:

(1) Range G-6 CBC (With RSS)

(2) Control of Airspace (Restricted Area (Airspace) R-5306D/E, Restricted Area (Airspace) R-5304/Restricted Area (Airspace) R-5303) by DASC.

(3) All CAS missions (including SIMCAS)

(4) ALL Lyman Road Closures (AV-8B Ops)

(5) FARP Operations (With RC Operations Officer)

(6) G-10 Helo/Fixed-wing Operations TACPs (LF/NLF)

(7) MAC-3 (RSS)

(8) CAPEX/VIPEX and other large special events

(9) All Hikes (Checklist Required) (With Range Control Operations Chief).

(10) Training on Onslow Beach (EB TA) (Beach Checklist Required) (With Range Control Operations Chief).

(11) Other ranges/activities as required or directed.

b. All Face-to-Face briefs will occur at BLACKBURN right after the RTA or facility is checked out. The RTA or facility must be checked out NLT 1200 the day prior (Monday-Thursday) to the first day of the planned event. Contact BLACKBURN for larger range activities (EWTGLANT TACP, CAPEX, MEU Events, Unit FSCEXs/TACPs, etc.) at (910) 451-3064 to schedule a brief. In the case of non-live-fire venues, Site Managers will provide training data directly to BLACKBURN at the completion of training.

### 13. Utilization Reporting

a. Accurate utilization data is critical to all DoD installations and is frequently used as a means to justify funding for new, improved, or enhanced ranges and training facilities.

b. Training units (ROIC/RSO) must report range usage data such as number of personnel trained and ammunition expended by DODIC to include all blanks/smoke/pyrotechnics type devices when calling into BLACKBURN to secure from the RTAs and facilities. If a live-fire training event takes place past midnight (2400) into another day (0001) the using unit must report each training day data separately so the BLACKBURN can close out that days usage data.

c. Training units will report TA usage to include any blanks, pyrotechnics, any other training device assigned a DODIC number and other training devices assigned a DODIC expended in that TA by **reporting occupation of and departure from TAs**. This must be done by VHF radio (or range phone if available) to BLACKBURN.

d. WTBn Stone Bay, II MEF, EOTG, and MSOS/MARSOC units are responsible for the daily scheduling of their ranges into RFMSS and reporting the utilization of those ranges, to include the number of personnel trained and type/DODIC/quantity of ammunition fired to BLACKBURN as required.

e. To record training conducted aboard Camp Lejeune by non-tenant units, the hosting tenant command must report the required information to Range Control. Host units that schedule RTAs or facilities for non-tenants can annotate the RFMSS comments section to identify the non-tenant unit. This information can also be passed to Range Control

by electronic means. Non-tenant units include active DoD units not stationed aboard MCIEAST-MCB CAMLEJ, non-tenant USCG units, reserve and National Guard units, units from foreign countries, local, and national law enforcement agencies, civic or fraternal organizations.

14. Barricades, Road Guards, and Tower Guards

a. Using units are responsible for closing the approaches to the live-fire range SDZs/areas created by their live-fire training events. In many cases, barricades, gates, and appropriate warning signs are adequate. In those cases that require road guards, Range Control will provide a road guard map showing all road guard positions to the ROIC when he/she checks out the live-fire range. It is the ROIC/RSO responsibility to ensure that all barriers/gates with locks and road guards are in the correct position to prevent anyone from inadvertently entering the live-fire SDZ/WDZ.

b. Barricades

(1) There are two types of barricades:

(a) Portable barricades consisting of a sawhorse (like) structure or plastic barriers that are at least two ft. high placed directly across the road. The barricades shall be painted a bright color.

(b) Permanent barricades consisting of range gates will be locked in place or have a sentry on duty at that location. Permanent barricades are emplaced on all major road and trails leading into the impact areas. Other permanent barricades are emplaced on various ranges to prevent down range movement or lateral movement into danger areas. Permanent barricades must be kept closed at all times except when authorized access is required. Using unit shall never remove a permanent barricade or road closed sign. Firing units must ensure that barricades are in place prior to commencing any live-fire. Specific requirements for each range/training facility are listed and described in the Range Cards, which can be found on the Range Control website.

(2) Range Maintenance/Public Works maintains portable barricades and signs for placement as required or on request. Units requiring portable barricades will return the barricades to the Range Maintenance Section/Public Works upon completion of use.

(3) At no time will anyone, any vehicle, any unit drive around a locked gate or a sign that states "Road Closed" without checking in with BLACKBURN/Range Control. If properly scheduled, the unit will be given the required keys to unlock the range gate or gates. Report all damaged gates/barricades or locks that are not working properly to Range Control/Range Inspectors.

c. Road and Tower Guards

(1) Road guards will be posted by firing units ROIC/RSO to prevent entry into the danger areas of that specific range. Ordinarily, most range access roads do not require a road guard or road guards.

(2) The ROIC or RSO may post other road guards as deemed necessary to ensure safety; however, the arbitrary blocking of roads will not be permitted. At no time will units stop a Range Control, Range Inspector or any other authorized section such as Camp Lejeune EMD from entering a RTA or training facility unless coordinated for entry with the ROIC/RSO if the range/facility is in use.

(3) Road guards must have positive means of communication with the firing unit ROIC/RSO at all times and must wear a reflective road guard vest at all time while assigned as a Road Guard. Road Guards are responsible for conducting a detail police call of that road guard position assigned, the surrounding areas of the road guard position and it must be inspected and cleared by a Range Control Range Inspector.

(4) Tower guards will be posted when firing over or into or from the waterways/ocean adjacent to Camp Lejeune, as specified in Chapter 3. Road guards and tower guards must be competent personnel who are familiar with the range procedures and capable of taking immediate, positive action in emergency situations. Tower guards must be familiar with all communication procedures, thoroughly briefed and equipped with binoculars and at night with night vision devices. Units will conduct a police call of the tower/tower guard area.

15. Vehicles

a. Military vehicle speed limit is 25 mph for all wheeled and 15 mph for tracked vehicles while off the hard/paved surfaced roads, such as tank trails/gravel roads, and in the all TAs unless posted otherwise aboard Camp Lejeune. Vehicle speed will not exceed what is safe for, conditions like adverse road conditions, weather conditions, dust, and night driving conditions. Vehicle speed will be reduced as required to operate the vehicle safely at all times.

b. Night vision goggles driving will be in accordance with II MEF, Division, MARSOC, TECOM, 2d MLG, and 2d MAW orders/policies, with a maximum speed of no more than 15 mph while wearing night vision goggles. Night vision driving/night tactical driving will only take place on scheduled/approved TAs/tank trails in RFMSS. At no time will this type of vehicle training take place on any hard/paved surfaced roads. Highway 172 CVOT Course can be scheduled for night vision driving on the paved surface if properly scheduled in RFMSS, signed

for and the required road guards provided. Speed limits when passing troops that are conducting training (Hikes) is limited to no faster than five mph. Units must ensure a route reconnaissance is conducted to ensure the scheduled routes are clear and can be used safely for road marches with personnel and tactical vehicles.

16. Other Notes/General Comments(s)

a. Police Call. Upon completion of all training, ROICs and RSOs will ensure a thorough, detailed police call is conducted of the entire RTAs and training facilities in order to ensure that no trash, ammunition boxes, or any other debris/dunnage has been left in the area and that all fighting positions and holes have been filled in by the using unit. All areas/buildings/structures occupied during the conduct of training will be thoroughly policed; if a TA has not been policed upon the occupation of the using unit, the unit shall notify BLACKBURN of the situation so it will not be held responsible for the RTA or facility. When an area is found by Range Control personnel to be in a poor state of police, the last known using unit will be required to return to the training facility, TAs or live-fire ranges and police it up thoroughly and be inspected to be properly cleared.

b. The use of all pyrotechnics/smoke/CS is prohibited 500 meters from the center of the old and new Landfill. Pyrotechnics/Smoke/CS is not authorized in the entire GSRA complex. Pyrotechnics/Smoke/other training devices are not authorized within 1000 meters of the fuel farms aboard Camp Lejeune.

c. OPs must be requested in the same manner as all other training facilities.

d. At no time will metal stakes/engineer stakes be used to support any type of target material or used to support wooden pallets being used as targets due to the potential high hazard of ricochets. Units are not authorized to fire at steel targets using 5.56mm green tipped (DODIC A059/A064) ammunition closer than 100 meters.

17. Hikes (Road March)

a. Units must check in with BLACKBURN at the start of the hike, (Road March) halfway, and upon completion reporting the number of personnel trained. Hike Checklist must be provided with overlay.

b. The unit must have road guards during the hike with required safety vests on, a government safety vehicle and a proper equipped corpsman or corpsmen depending on the size of unit during the entire hike. The road guards (headlights/taillights) will have some type of light device/system displayed on them (i.e., flashlight, or chem-lights) that is visible to all others during night/low visibility. Hiking units must keep all personnel at least three feet from the

hard-surface roads and this must be enforced. Road guards will be posted for all paved road crossings. Safety vehicles are not authorized on the paved PT/MCCS bike trails. Hiking units and the assigned safety vehicles cannot delay/impede the normal flow of civilian vehicle traffic. Using unit must ensure proper road crossing procedures are in place, enforced, and supervised to prevent a mishap/accident. Units are not authorized to cross major/high traffic roads during high traffic times periods like Holcomb Boulevard, Sneads Ferry Road, McHugh Blvd, Cross Street, and Birch Street. If a unit requires crossing major/high traffic road it must be coordinated by MCIEAST-MCB CAMLEJ Range Control, Base Operations, and PMO at least 15 working days in advance to be granted the required permission.

18. Police of Ranges, Training Areas, and Training Facilities

a. Purpose. To identify policies and procedures for the clearance, policing, and inspecting and a range inspection by a Range Control, Range Inspector of all training facilities and ranges of all training facilities, ranges, and TAs aboard Camp Lejeune. Unit Commanders/ROIC/RSO are responsible for the policing of all RTAs and training facilities scheduled and/or used aboard Camp Lejeune.

b. Policies and Procedures

(1) Prior to occupying any RTAs or training facilities the unit may cancel a RFMSS requests for those areas scheduled that are no longer needed/wanted. This must be done no later than 24 to 48 hours prior to the first scheduled day or the unit will be responsible for clearing/inspecting these facilities.

(2) Upon completion of training, COs and/or the ROIC/RSO of RTAs and training facilities or other scheduled facilities will coordinate with Range Control/BLACKBURN for a clearance/inspection of the assigned area(s). When planning training, units must include sufficient time and resources to properly conduct the detailed police call/field day of the areas/facilities used for a clearance /inspection. When multiple areas are scheduled, areas will be inspected on a first-come, first-served basis. Failure to effect timely coordination may result in a delay in obtaining a clearance /inspection and delay or otherwise interfere with another unit's scheduled use of the range or training facility.

(3) When a unit schedules a RTA or facility, that unit is responsible for obtaining clearance/inspection. Failure to occupy a scheduled range/TA/facility, or allowing another unit use of the areas, does not relieve the scheduled unit from the responsibility to get cleared/police/inspect those area/areas scheduled.

(4) When approved through Range Control concurrent usage and piggybacking, is authorized with coordination between a scheduled unit and a unit desiring to use the same facility. Clearance of that facility will remain the responsibility of the initial user, unless the concurrent usage agreement specifically states otherwise.

(5) Fighting holes/fighting positions, emplacements, ditches, etc., will be filled in before requesting clearance/inspection. The RTA or facility will be thoroughly policed; communications, concertina wire or other obstacles, sandbags, unit vehicles and other equipment must be removed before final clearance/inspection. Burying of trash /ammunition dunnage on a range/TA is strictly prohibited. All trash /garbage will be removed from the RTA or facility and disposed of properly by the unit.

(6) If an area is found to be in a poor state of police the using unit must contact BLACKBURN immediately so a Range Inspector can be dispatched to that site to investigate. Range Control Operations will notify the last known unit scheduled for that area (providing the unit was not properly cleared), and the unit will be required to properly clear/police the area.

(7) If it is impossible for an inspection to be conducted prior to a unit's departure or if inspection conducted is unsatisfactory, the CO/ROIC/RSO will designate a responsible individual, preferably one who participated in the training, to accompany a Range Inspector on a subsequent inspection within 24 hours. Failure to clear/inspect a RTA or facility on time will result in the scheduled unit's CO/ROIC/RSO being notified of the non-compliance with this Order. If the unit CO/ROIC/RSO takes no action, then follow-up action will be taken which could include denial of access to the Installation Training Facilities in accordance with reference (a) and this Order/Range Cards.

c. Before securing from a range, training/maneuver area or training facility, each using unit will thoroughly police the entire area used and remove all trash/dunnage/target material. At no time will a unit burn trash or bury trash aboard Camp Lejeune.

d. The unit's ROIC/RSO conducting the training, will request a Range Inspector or MOUT Staff from Range Control, or the Training Support Division (TSD) Site Managers for training simulators as may be appropriate, for final inspection prior to securing from the RTA or training facility. BLACKBURN will coordinate the inspection time and will instruct the ROIC/RSO to be available to meet the Range Inspector or MOUT Staff for those sites. An inspection will be scheduled as soon as possible after firing is completed. Units securing from their live-fire range or training facility after dark will be inspected the following morning/day.

e. Units are required to carry trash bags for policing the area and deposit the trash bags in the unit's trash receptacle/dumpster. Do not deposit trash in dumpsters that do not belong to your unit, i.e., contractors/construction company/MCCS dumpsters on the ranges/beach.

f. Wood products will be taken to the Camp Lejeune landfill. Scrap metal, plastic items will be placed in the Camp Lejeune recycling program containers at the Recycling Center. Metal, cardboard, any wood products or ammunition dunnage will not be placed in dumpsters. At no time will ammunition related items, used targets be placed in a dumpster or left on RTAs or training facilities.

19. Fouled Ranges. It is possible for unauthorized personnel, vehicles, and watercraft to trespass onto RTAs and foul target complexes or RTAs. Fouled ranges not only hamper mission readiness, but also pose a significant safety hazard to the trespassers themselves. In order for MCIEAST-MCB CAMLEJ G-3/5 (Range Control /BLACKBURN) to determine the magnitude of this dilemma and apply appropriate corrective measures, documentation is necessary. Any mission interrupted or aborted due to a fouled range will be immediately reported to Range Control/BLACKBURN.

20. Range Violations

a. In addition to the regulations stated in this Order/Range Cards/Range Control Advisory Messages, all training units must abide by the special instructions outlined in the individual range cards, which are an extension to this order. Individual range cards containing SPINS and duties along with responsibilities of the ROIC/RSO are located at Range Control, as well as the Camp Lejeune Range Control website.

b. Any infractions will result in a range violation. Range Operations personnel, are the issuing agents for these violations. In the event of a violation, all training may be halted until corrective action has been taken. ROIC/RSO privileges may be revoked by the RCO/RCOO based on the severity of the infraction(s).

**Warning: Failure to comply with these regulations may subject the offender to administrative action or disciplinary action under the UCMJ. Commanders of organizations using the ranges are encouraged to submit recommendations, improvements, or changes to the CG MCIEAST-MCB CAMLEJ (G-3/5 RCD).**

c. ROIC/RSO Decertification/Suspension. De-certification is the loss of privilege to act as ROIC, RSO, or RLSO aboard MCIEAST-MCB CAMLEJ due to a major violation of safety procedures. Suspension of privileges may be derived from reoccurring minor infractions or major infractions with mitigation.

(2) Examples of Major Violations are:

(a) Any violation to the safety criteria established in reference (a) and the current version of this Order/Range Cards.

(b) Repeated loss of communications or failure to make/respond to radio checks with Range Control/BLACKBURN.

(c) Conduct live fire on a range that has not been cleared for live fire by BLACKBURN.

(d) ROIC/RSO/Corpsman participating in the live fire training.

(e) Firing during a Cease-Fire/Check-Fire/Quiet Hours.

(f) Failure to report a serious Incident/Accident to BLACKBURN.

(g) Firing without the proper medical support available on the range.

(h) Extensive damage to a range, training area or facility.

(i) Intentional disregard for guidance from a Range Control representative.

(j) UAS Operations, exiting a ROZ without approval.

(k) Aviation ordnance being dropped or fired outside of the designated Impact Area.

(l) Pilot flying into an SDZ/ROZ without permission.

(2) Examples of Minor Violations are:

(a) Missing 2 consecutive radio checks with BLACKBURN.

(b) Denying Range Control personnel access to inspect training/ranges/training areas/training facilities.

(c) Failure to report a change of ROIC/RSO/LRSO during a live fire.

(d) Failure to secure a range gate/place out road guards.

(e) Failure to properly clear a range/training areas /training facilities (Range Inspection).

(f) Performing range modifications without prior coordination/clearance with Range Control.

(g) Individuals lacking proper (PPE) like hearing, eye protection, helmets and flak jacket.

(h) Pilot of an aircraft failing to follow advised routing provided by BLACKBURN.

(3) De-certification requires the ROIC/RSO/RLSO to wait a minimum of 60 days prior to re-certification. To re-certify; the Marine must re-take the ROIC/RSO Course and receive additional training on the subject area upon which they were decertified. Incidents revolving around weapons systems will require recertification on that weapon system at the unit level.

(4) The decision to suspend or decertify an individual rests at the level of the Installation RCO/RCOO.

## 21. Ranges

NOTE: The table below is a quick reference to all ranges aboard Camp Lejeune. This is subject to change. For a complete description of each range, see the referenced Range Card for that range. A copy of the Range Cards can be obtained on the Range Control Web Page.

RANGE	GRID	PRIMARY USE OR DESCRIPTION
A-1	18S TD 790445	Pistol Qualification/Requalification Range
B-12	18S TD 743452	Pistol Qualification/Requalification Range
R-100 MCCS Range	18S TD 865436	Skeet/Trap and Archery Range (MCCS Range Only)
D-29A	18S TD 839382	Pistol Qualification/Requalification Range
D-29B	18S TD 840382	Pistol Qualification/Requalification Range
D-30	18S TD 851369	Pistol Qualification/Requalification Range
E-1	18S TD 930287	Anti-Aircraft Range (Stinger Missile)
ETA-1	18S TD 843284	Engineer Demolition Training (MCES)
ETA-2	18S TD 865271	Engineer Demolition Training
ETA-3	18S TD 878408	Engineer Training Area (Non-Live-fire Engineer Training)
ETA-4	18S TD 910328	Engineer Demolition Training

RANGE	GRID	PRIMARY USE OR DESCRIPTION
ETA-5/ETA-5A	18S TD 824360	Engineer Demolition Training
ETA-6 CVOT	18S TD 845290	Combat Vehicle Operators Training (CVOT) Confidence Course
ETA-7	18S TD 848329	Engineer Demolition Training (Steel/Concrete Cutting Pit)
ETA-7A	18S TD 847335	Engineer Demolition Training (MCES)
ETA-7B	18S TD 842329	Engineer Demolition Training (MCES)
ETA-7C	18S TD 848326	Engineer Demolition Training (MCES)
ETA-7D	18S TD 853328	Engineer Digging Area Training (MCES)
ETA-8	18S TD 856324	Engineer Demolition Training (MCES)
ETA-9	18S TD 860329	Engineer Demolition Training (2d CEB)
ETA-10	18S TD 865340	Engineer Demolition Training (2d CEB)
ETA Mainside	18S TD 856379	Engineer Training Area (2d CEB) Heavy Equipment Training Area
ETA New River	18S TD 741443	Engineer Training Area (New River, MWSS) Heavy Equipment Training Area
F-2	18S TD 907429	Squad Automatic Rifle Transition Range
F-4	18S TD 918426	Rifle Familiarization Range
F-5	18S TD 909428	Squad Live-fire Maneuver Course
F-6	18S TD 877383	Hand Grenade Qualification with Grenade Assault Course
F-11A	18S TD 870396	Basic 30 Meter Firing Range (BZO/ZERO Range)
F-11B	18S TD 870395	Pistol Qualification/Requalification Range
F-17	18S TD 877386	Training Tower/Fast Roping/ Rappelling/Climbing Tower
F-18	18S TD 870394	Machinegun Field Fire Range F-18, F-18 7.62mm Match, F-18 .50 cal
G-3	18S TD 897346	Infantry Weapons Range G-3, G-3 TOW
G-5	18S TD 941324	Infantry Weapons Range/AAV/LAV Gunnery Range
G-6/CBC	18S TD 944328	Infantry Company Battle Course (Company Live-fire and Maneuver)
G-7	18S TD 959344	Field Artillery Direct Fire Range/Infantry Weapons Range

RANGE	GRID	PRIMARY USE OR DESCRIPTION
G-19A	18S TD 897342	Light Anti-Armor/Antitank Weapons Range
G-19B	18S TD 898340	M203/M32 Grenade Launcher Range
G-21	18S TD 907307	Multi-Purpose Machinegun Range (MPMG)
G-27	18S TD 951339	Infantry Squad Battle Course (ISBC)
G-29A/G-29B	18S TB 904372	Multi-Purpose Weapons Range Complex
H-Range	18S TD 953311	Riverine Assault Range Waterborne Gunnery Range
I-1	18S TD 842278	Pistol Qualification/Requalification Range
K-325	18S TD 823356	Combat Marksmanship Program (CMP) Range
K-402	18S TD 777350	Individual Tactical Training Range Fire and Maneuver
K-402A	18S TD 778351	Military Operations in Urbanized Terrain (MOUT)(Shoothouse)
K-406A	18S TD 777347	Combat Marksmanship Range (CMP)
K-406B	18S TD 777346	Close Combat Range
K-407	18S TD 777344	Live-fire Ambush Range
K-408	18S TD 775342	Urbanized Live-fire Obstacle Course
K-500	18S TD 783355	Infantry Mortar Range (60mm/81mm)
K-500A	18S TD 783355	MK-19 40mm Grenade Launcher Range
K-501 K-501A	18S TD 788361	Electronic Target Rifle/ (M249 SAW/M27 IAR Range) K-501A BZO/Zero/CMP Range
K-502	18S TD 793336	Light Anti-Armor Weapons Range 9mm/Sub-Caliber Training Device Only
K-503 K-503A	18S TD 797361	Electronic Target Rifle M16/M4 Range K-503A BZO/Zero/CMP Range
K-504A K-504B	18S TD 802362	M203/M32 Grenadier Range K504A (HE/HEDP Only) K504B (TP Only)
K-505	18S TD 805366	Light Anti-Armor Weapons Range (MK153 SMAW/M72A7 LAAW/AT-4 Rockets/MAAWS)
K-506	18S TD 809361	Combat Marksmanship Program (CMP) Range
K-507	18S TD 811360	Combat Marksmanship Program (CMP) Range

RANGE	GRID	PRIMARY USE OR DESCRIPTION
K-508	18S TD 814361	Combat Marksmanship Program (CMP) Range
K-509	18S TD 819360	Infantry Squad Battle Course (ISBC) (Squad Fire and Maneuver Range)
K-510	18S TD 808371	K-510 Hand Grenade Range K-510 Hand Grenade Assault Course
L-5	18S TD 735311	Infantry Live-fire Maneuver Range
MAC-1	18S TD 935377	Urban Quick Kill Range, Basic Room Entry and Clearing Range
MAC-2	18S TD 935377	Search and Kill Range, Basic Room Entry and Clearing Range
MAC-3	18S TD 935378	Live-fire Grenade House
MAC-4	18S TD 936378	Fire Team MOUT Range
MAC-5	18S TD 936379	Basic Squad MOUT Range
MAC-6	18S TD 937379	Combat Marksmanship Range (CMP Range)
MAC-7	18S TD 937380	Urban M203/M32 Grenadier Range
SR-6	18S TD 718330	Infantry Platoon Battle Course (Platoon Fire and Maneuver Range)
SR-7	18S TD 722368	LAR Crew Qualification Firing Range
SR-8	18S TD 699321	Multi-Purpose Machinegun Range (MPMG)
SR-9 (Combined Arms Range)	18S TD 618353	Infantry Platoon Battle Course(IPBC)/Combined Arms Range(CAB)
SR-10	18S TD 657269	Tank/LAV/AAV/Wheeled Vehicle Crew Qualification Firing Range
SR-11	18S TD 655265	Pistol Qualification/Requalification Range
A, B, C, Rifle Ranges (SBRR)	18S TD 755307	Stone Bay Known Distance Rifle Qualification Ranges (Alpha, Bravo, Charlie Rifle Ranges)
Hathcock Range (SBRR)	18S TD 762307	Stone Bay 1000 meter Sniper Range
Mechanical Pistol(SBRR)	18S TD 752308	Stone Bay Pistol Qualification Range
Walk Down Pistol(SBRR)	18S TD 753308	Stone Bay Pistol Qualification Range
Dodge City (SBRR)	18S TD 751308	Stone Bay Urban Shooting Range
Multi-Purpose (SBRR)	18S TD 751309	Stone Bay 100 meter Small Arms Range

RANGE	GRID	PRIMARY USE OR DESCRIPTION
RR-215 Breacher (EOTG)	18S TD 760301	EOTG Breacher Training Facility
Breacher Pit (EOTG)	18S TD 761301	EOTG Breacher Pit Training Area
Square Bay RR-227 (EOTG)	18S TD 760299	EOTG Small Arms Range
RR-249 (EOTG)	18S TD 760301	EOTG CQB One Story Shoothouse
RR-243 (EOTG)	18S TD 761302	EOTG Three story Urban Training Facility
NLW Range (EOTG)	18S TD 760298	EOTG Non Lethal Grenades and Weapons Ranges
Murphy's Mountain RR-230 (EOTG)	18S TD 761303	EOTG Climbing Wall
Rollins Peak RR-230 (EOTG)	18S TD 761303	EOTG Training Tower
EOTG Tower SRR-211 (EOTG)	18S TD 759299	EOTG Multi-Purpose Training Tower
MOUT Lejeune	18S TD 938382	MOUT-Lejeune (MOUT Complex)
MOUT Lejeune (E-MOUT)	18S TD 940383	MOUT-Lejeune (Enhanced) (E-MOUT)
MOUT Mobile (NLF) Complex	18S TD 944388	MOUT-Mobile Complex (NLF)
Live-Fire MOUT-Mobile (LF)	18S TD 944388	Live-fire MOUT-Mobile (LF) Building Numbers 2, 24, 36, 40, 67
MOUT-Mobile Farm House	18S TD 945388	MOUT-Mobile Farm House
MOUT Lejeune UTF	18S TD 942383	MOUT Lejeune (UTF) Urban Training Facility
MOUT-Sniper Tower	18S TD 938382	MOUT-Sniper Tower (MOUT Complex)
MOUT Lejeune FOB	18S TD 944386	MOUT-Lejeune Forward Operation Base (MOUT-Lejeune FOB)
MOUT-Hawk FOB	18S TD 896319	MOUT-Hawk Forward Operation Base (MOUT-Hawk FOB)
MOUT-Lejeune Bivouac Site	18S TD 944388	MOUT-Lejeune Bivouac Site (MOUT Biv)
MOUT-SE Facility	18S TD 941382	Site Exploitation (SE) Facility Search Houses (MOUT Complex)

RANGE	GRID	PRIMARY USE OR DESCRIPTION
MOUT-Combat Town	18S TD 888322	MOUT-Combat Town
Geiger Mobile MOUT Complex	18S TD 753455	Geiger Mobile MOUT Complex
Airfield Seizure Facility North	18S TD 662227	Camp Davis, Tactical Airfield Assault and Seizure (AFS SZ FAC NORTH)
Airfield Seizure Facility South	18S TD 659214	Camp Davis, Tactical Airfield Assault and Seizure (AFS SZ FAC SOUTH)
GSRA FOB	18S TD 721339	Greater Sandy Run Area Forward Operating Base (GSRA FOB)
FOB-Lot 140 Ash Street FOB	18S TD 861393	Forward Operating Base Lot-140 Ash Street Forward Operating Base (FOB)
Camp Devil Dog MOUT	18S TD 755413	Camp Devil Dog MOUT (SOI)
Area 5 Training Tank	18S TD 853368	MCWST Qualification and Requalification Training Support Division (TSD)
Courthouse Bay Training Tank	18S TD 833295	Courthouse Bay Training Tank (TSD)
Underwater Egress Trainer	18S TD 843390	Underwater Egress Trainer (UET) "Helo Dunker" TSD
EOD-2	18S TD 817365	EOD Range
EOD-3	18S TD 868338	EOD Range
CS CHAMBER CBRN OBS COURSE CS CHAMBER	<u>Mainside</u> 18S TD 873386 <u>Camp Geiger</u> 18S TD 747457	<u>Mainside</u> CS CHAMBERS AND CBRN OBSTACLE COURSE  <u>Camp Geiger</u> CS CHAMBERS
G-10 Live-fire Convoy Range	18S TD 916374	G-10 Live-fire Convoy Range Site 3 and Site 4
UCAS Lego City	18S TD 912357	G-10 Urban Close Air Support Facility (UCAS) Lego City
HSTL GSRA CIED Battle Course (SR-12)	18S TD 647256	Home Station Lane Training Complex CIED Battle Course, JIEDDO Battle Course/Complex (GSRA Complex) SR12 HSTL Complex
OP-2 Tower	18S TD 915375	OP-2 Tower and OP-2 LASER
OP-3 Tower	18S TD 927370	OP-3 Tower OP-3 LASER
OP-5 Tower	18S TD 898344	OP-5 Tower OP-5 LASER

RANGE	GRID	PRIMARY USE OR DESCRIPTION
OP-12 Tower	18S TD 809361	OP-12 Tower OP-12 LASER
OP-14 Tower	18S TD 951336	OP-14 Tower OP-14 LASER
OP-15 MOUT- Combat Town Tower	18S TD 888322	OP-15 MOUT-Combat Town Tower (MOUT-Combat Town OP-15)
OP-16 MOUT- Mobile Tower	18S TD 942387	OP-16 MOUT-Mobile Tower (MOUT-Mobile OP-16)
MET, (CAMLEJ) MRAP Egress Trainer	18S TD 916378	MET, MRAP Egress Trainer (MET) Lyman Road, Across the Street from OP 2, Building T-73 TSD
MET, (NRAS) MRAP Egress Trainer	18S TD 755430	MRAP Egress Trainer (MET) Building AS 3513, Perimeter Rd, MCAS New River TSD
ODS, Operator Driving Simulator	18S TD 916378	ODS, Operator Driving Simulator Lyman Road, Across the Street from OP 2, Building T-73. TSD
SAVT, Supporting Arms Virtual Trainer	18S TD 916378	SAVT, Supporting Arms Virtual Trainer Lyman Road, Across the Street from OP 2, Building T-73. TSD
CCS Trainer, Combat Convoy Simulator	18S TD 916378	CCS Trainer, Combat Convoy Simulator Lyman Road, Across the Street from OP 2, Building T-73. TSD
MCIT, Mobile Counter IED Interactive Trainer	18S TD 868395	MCIT, Mobile Counter IED Interactive Trainer, Adjacent to the Infantry Immersive Trainer (IIT) Building 904 on Sneads Ferry Road TSD
HEAT Trainer (MCB CAMLEJ)	18S TD 916378	HEAT Trainer (Camp Lejeune) HMMWV Egress Assistance Trainer Lyman Road, Across the Street from OP 2, Building T-73. TSD
HEAT Trainer, (MCAS New River)	18S TD 755430	HEAT Trainer, MCAS New River HMMWV Egress Assistance Trainer Building AS 3515, Perimeter Rd, MCAS New River, Adjacent to AS 3515, located in the large white tent. TSD

RANGE	GRID	PRIMARY USE OR DESCRIPTION
Infantry Immersion Trainer (IIT)	18S TD 869393	Infantry Immersion Trainer (IIT) Training Facility (Indoor) Infantry Squad Immersive Decision Trainer TSD

Table 5-1--Camp Lejeune Ranges

22. Pistol Ranges

a. All Camp Lejeune pistol ranges are set up and operated by a civilian contractor and require 48 hour advance scheduling. Requests for additional range time must be received at Range Control at least four hours before the originally scheduled cold time and during normal working hours. After working hours the using unit will need to contact BLACKBURN. The range operator must be present on the range before a unit can request to go "HOT" unless pre-arranged.

b. Training on the Remote Control Unit (RCU) and the Potable Infantry Target System (PITS) is available by the contractor Monday through Friday (0700-1600) on a walk-in basis by contacting 450-9955 at Building 1404 on Elm Street.

c. When the range is signed for at Range Control in Building 54, the using unit will receive a copy of this Order/Range Card and range flag.

d. Any problems with the operation of the PITS systems/RCU, or damage to the system or ventilation system, contact the Contracting Officer Representative at (910) 450-8004/(910) 451-9375.

23. Impact Areas

a. General. There are three main impact areas aboard Camp Lejeune: N-1/BT-3, G-10, and K-2. G-10 and K-2 are the only impact areas designated where dud-producing ordnance and training practice ordnance can be fired. N-1/BT-3 is restricted to only non-dud producing ordnance (Inert Ordnance Only), except on E-1, G-5, and G-7. No personnel will enter a designated impact area aboard Camp Lejeune without approval from the RCO and EOD support to escort them. For the purpose of constructing an SDZ/WDZ, all buffer, and ricochet areas, will be contained within the impact area. Impact area and range boundaries are marked with red warning signs: Danger Impact Area, Keep Out. BLACKBURN controls all live-fire into all impact areas aboard Camp Lejeune.

b. For additional information pertaining to impact areas, refer to Appendix B.

24. Training Areas

a. General. Scheduling of training/maneuver areas will be done in accordance with Chapter 3 of this Order. Units conducting training in TAs must be inspected by a Range Inspector to be properly cleared.

b. TAs and Their Use

(1) The table below lists all the TAs by name and primary use:

TA NAME	PRIMARY USE
AA	Tactical Maneuver Training
AC	Tactical Maneuver Training
B Areas	Tactical Maneuver Training
BA	Tactical Maneuver Training
BB	Tactical Maneuver Training
BC	Tactical Maneuver Training
BD	Tactical Maneuver Training
DC	Tactical Maneuver Training
E Areas: EA,EB,EC	Amphibious Exercises and Training
F Areas	Tactical Maneuver Training
FA	Tactical Maneuver Training
FB	Tactical Maneuver Training
FC	Tactical Maneuver Training
FD	Tactical Maneuver Training
FE	Tactical Maneuver Training
FF	Tactical Maneuver Training
FG	Tactical Maneuver Training
G Areas	Tactical Maneuver Training
GA	Tactical Maneuver Training

TA NAME	PRIMARY USE
GB	Tactical Maneuver Training
GC	Tactical Maneuver Training
GD	Tactical Maneuver Training
GE	Tactical Maneuver Training
GF	Tactical Maneuver Training
GG	Tactical Maneuver Training
GH	Tactical Maneuver Training
GI	Tactical Maneuver Training
H Areas	Tactical Maneuver Training
HA	Tactical Maneuver Training
HB	Tactical Maneuver Training
HC	Tactical Maneuver Training
HD	Tactical Maneuver Training
HE	Tactical Maneuver Training
HF	Tactical Maneuver Training
HG	Tactical Maneuver Training
HH	Tactical Maneuver Training
I Areas	Tactical Maneuver Training
IA	Tactical Maneuver Training
IB	Tactical Maneuver Training
IC	Tactical Maneuver Training
ID	Tactical Maneuver Training
IE	Tactical Maneuver Training
IF	Tactical Maneuver Training

TA NAME	PRIMARY USE
IG	Tactical Maneuver Training
J Areas	Amphibious Exercises
JA	Tactical Maneuver Training
JB	Amphibious Exercises
JC	Amphibious Exercises
JD	Tactical Maneuver Training
JE	Tactical Maneuver Training
K Areas	Tactical Maneuver Training
KA	Tactical Maneuver Training
KB	Tactical Maneuver Training
KC	Tactical Maneuver Training
KD	Tactical Maneuver Training
L Areas	Tactical Maneuver Training
LA	Tactical Maneuver Training
LB	Tactical Maneuver Training
LC	Tactical Maneuver Training
LD	Tactical Maneuver Training
LE	Tactical Maneuver Training
LF	Tactical Maneuver Training
LG	Tactical Maneuver Training
LH	Tactical Maneuver Training
M Areas	Tactical Maneuver Training
MA	Tactical Maneuver Training
MB	Tactical Maneuver Training
MC	Tactical Maneuver Training
MD	Tactical Maneuver

TA NAME	PRIMARY USE
	Training
ME	Tactical Maneuver Training
MF	Tactical Maneuver Training
O Areas	Tactical Maneuver Training
Oak Grove OLF	Tactical Aircraft Training
OA	Tactical Maneuver Training
OB	Tactical Maneuver Training
OC	Tactical Maneuver Training
OD	Tactical Maneuver Training
OE	Tactical Maneuver Training
OF	Tactical Maneuver Training
Q Areas	Tactical Maneuver Training
QA	Tactical Maneuver Training
QB	Tactical Maneuver Training
R Areas	Tactical Maneuver Training
RA	Tactical Maneuver Training
RB	Tactical Maneuver Training
S (GSRA) Areas	Tactical Maneuver Training
SA	Tactical Maneuver Training
SB	Tactical Maneuver Training
SC	Tactical Maneuver Training
SD	Tactical Maneuver Training
SE	Tactical Maneuver Training
SF	Tactical Maneuver Training
SG	Tactical Maneuver

TA NAME	PRIMARY USE
	Training
SH	Tactical Maneuver Training
SI	Tactical Maneuver Training
SJ	Tactical Maneuver Training
SK	Tactical Maneuver Training
SL	Tactical Maneuver Training
SM	Tactical Maneuver Training
SN	Tactical Maneuver Training
SO	Tactical Maneuver Training
SP	Tactical Maneuver Training
SQ	Tactical Maneuver Training
SR	Tactical Maneuver Training
ST	Tactical Maneuver Training
SU	Tactical Maneuver Training
SV	Tactical Maneuver Training
SW	Tactical Maneuver Training

Table 5-2--Camp Lejeune TAs

(2) Regulations. Weapons and ammunition allowed.

(a) Live-fire is prohibited unless scheduled in RFMSS and signed for the live-fire range/training facility.

(b) Blank fire and I-TESS-II gear are authorized in TAs. Request to conduct blank firing/pyrotechnic must be included in RFMSS and signed for by a Sgt (E-5) or above that is one the Command Certification Roster for that type of training activity.

(c) Blank fire and I-TESS-II gear will not be fired within a 300 meter buffer zone of any civilian residential structure not a part of MCIEAST-MCB CAMLEJ training complex (Marine Corps controlled property) or outly civilian buildings. At no time will live-fire ammunition and blank ammunition be mixed together in a TA.

(d) Use of riot control agents (CS), pyrotechnics, smoke grenades, booby trap simulators, and flash bangs are permitted in TAs east of Highway 17, but are prohibited in the GSRA and Oak Grove TAs because of extreme fire danger.

25. Training Areas External to Camp Lejeune

a. The CG MCIEAST-MCB CAMLEJ (G-3/5) has the delegated authority to execute an agreement with the U.S. Forest Service when external training with the National Forest.

b. Requests must be submitted by letter via the chain of command to the CG MCIEAST-MCB CAMLEJ (G-3/5) at least 45 days prior to commencement of training.

c. The following information is required:

- (1) Unit requesting training;
- (2) Date of request;
- (3) Date and description of training;
- (4) Attached map, dated and referenced to specific request. Indicate boundary of area requested and special features such as DZs, command post, TAs, bivouac areas, etc;
- (5) Number of troops; number and size of vehicles/equipment;
- (6) Sanitation facilities provided;
- (7) Field Liaison Contact
  - (a) Unit POC;
  - (b) Grade and Name; and
  - (c) Telephone Number
- (8) MCIEAST-MCB CAMLEJ Liaison Contact
  - (a) Unit POC;
  - (b) Grade and Name; and
  - (c) Telephone Number.
- (9) Unit POC for billing (Title and Telephone Number)
- (10) Inter-Service Support Agreement Number

d. The using unit CO will meet with the Forest Supervisor's designated liaison officer (LnO) at the site of planned occupancy one week prior to the commencement of the exercise. The unit CO will be prepared to post signs around the immediate exercise area to caution the public that military vehicles will be using the roads, training in assigned areas.

e. All special instructions received from the Forest LnO and range regulations of this Order will apply to training in National Forests.

26. Observation Posts. OPs/Ops Lasers are designated and identified as listed below and must be requested in the same manner as other training facilities/ranges. Using units will maintain communication with BLACKBURN at all times on 34.70 MHz. Using units will report all maintenance problems with OPs to Range Control at (910) 451-5803. Using units will police up the OPs and surrounding area. Other training may be conducted with some OPs through a SRR by identifying coordinates, stating intended purpose, and time period.

OP	COORDINATES	REMARKS
2	18S TD 91553757	Lucky's Mound, G-10 Impact Area, Lasers Authorized.
3	18S TD 92773704	G-10 Impact Area, Lasers Authorized
5	18S TD 89803440	Poggemeyer's Peak, Lasers Authorized, Range Control
6	18S TD 90023225	G-10, Fire Tower
8	18S TD 63983056	SN Area GSRA 125 Ft
9	18S TD 72243673	SD Area GSRA 125 Ft SR-7 Range
10	18S TD 63243001	SG Area GSRA 125 Ft
11	18S TD 64872567	ST Area GSRA 125 Ft
GSRA Fire Tower	18S TD 71903291	SR-46 Compound GSRA Fire Tower
12	18S TD 80973619	K-2 Impact Area OP-12, Lasers Authorized
14	18S TD 94893386	G-10 Impact Area (South/East), Lasers Authorized
OP Combat Town	18S TD 88893226	OP within Combat Town OP-15
OP Mobile MOUT	18S TD 94213876	OP within Mobile MOUT OP-16

Sniper Tower MOUT Complex	18S TD 93823807	Sniper Tower MOUT Complex
E-MOUT Tower	18S TD 95013834	E-MOUT Range, Control Tower
Sniper Tower Dodge City	18S TD 75133079	Sniper Tower Stone Bay Rifle Range Dodge City
F-5	18S TD 90954289	F-5 Live-fire Range, Control Tower
F-6	18S TD 87673835	F-6 Live-fire Range, Control Tower
L-5	18S TD 73563115	L-5 Live-fire Range, Control Tower
G-6 CBC	18S TD 94553293	G-6 CBC Live-fire Range, Control Tower
G-21	18S TD 90733072	G-21 Live-fire Range, Control Tower
G-27	18S TD 95093337	G-27 Live-fire Range, Control Tower
K-402	18S TD 77753508	K402 Live-fire Range, Control Tower
K-500A	18S TD 78393556	K-500A Live-fire Range, Control Tower
K-501	18S TD 78853621	K-501 Live-fire Range, Control Tower
K-502	18S TD 79343614	K-502 Live-fire Range, Control Tower
K-503	18S TD 79763611	K-503 Live-fire Range, Control Tower
K-504A/B	18S TD 80243621	K-504A/B Live-fire Range, Control Tower
K-505	18S TD 80573662	K-505 Live-fire Range, Control Tower
K-509	18S TD 81923606	K-509 Live-fire Range, Control Tower
K-510	18S TD 80813719	K-510 Live-fire Range, Control Tower
SR-6	18S TD 71883302	SR-6 Live-fire Range, Control Tower
SR-7	18S TD 72243689	SR-7 Live-fire Range, Control Tower
SR-8	18S TD 69963212	SR-8 Live-fire Range, Control Tower
SR-9	18S TD 61553543	SR-9 Live-fire Range, Control Tower
SR-10	18S TD 65722698	SR-10 Live-fire Range, Control Tower
Bear Tower	18S TD 97403420	N-1/BT-3, AIWW

North Onslow Tower	18S TD 93072880	N-1/BT-3, AIWW
Hathcock Range	18S TD 76303080	Firing Tower/Control Tower Rifle Range Sniper Range

Table 5-3--Camp Lejeune OPs/Range Towers

27. Recreational Use of Ranges, Training Areas, and Facilities

a. Presently only R-100 (Skeet/Trap and Archery Range) is available for recreational shooting. Recreational shooters under the age of 18 must be accompanied by an adult at all times. Contact the Skeet/Trap Range Manager at (910) 451-3889 for times and information. MCCS maintains a separate SOP for Skeet/Trap shooting procedures for R-100. Requirements for recreational shooting civilian weapons on assigned Lejeune live-fire ranges must be approved by the RCO/MCIEAST-MCB CAMLEJ G-3/5 via a formal request 30 days in advance as per Chapter 1 of this order.

b. The WTBn located at Stone Bay sponsors National Rifle Association and other civilian team shooting events. Contact WTBn (S-3) or Battalion Gunner at (910) 440-2705/2917 for more information.

c. When not in use for training, the EB training beach is available for recreational use. Refer to the flip sign on the road at the entrance of EB TA for the availability of recreational use. Range Inspectors will flip the sign to recreational use after the training unit passes the required inspection. Recreational users may call BLACKBURN, (910) 451-3064, to check on the use of the EB training beach. MCCS and the CLEO are responsible for advising its patrons on the environmental rules of the beach and cleaning up after its use. CLEO's will periodically check EA/EB TAs to verify recreational users are authorized and in compliance with Base regulations/orders. All domesticated animals accompanying recreational users must be held on a leash/reins and any defecation by these animals must be bagged and removed with the patron from the beach. If any portion of the EB TA is desired to be used for a family day/unit party, the requesting unit must submit a SRR through their chain of command to arrive at Range Control at least 30 working days in advance of the date of the event.

d. When checking out a live-fire range, the ROIC must indicate anticipated time of use and the type of training to be conducted, type of ordnance (DODICs or NALC) and weapons to be used at the time of check-out. Request to extend contractor/non-contractor supported ranges (live-firing times) during normal working hours will be directed to Range Scheduling (Monday to Thursday 0730-1630 and on Friday 0730-1530). After hours and weekend requests will be submitted to BLACKBURN. BLACKBURN has the authority to extend range firing times up to one hour. Requests for extension beyond one hour will be

submitted to the RCO. Requests for extensions on all contracted run ranges must be submitted at least four hours in advance for approval during normal working hours.

28. Fire and Movement/Maneuver

a. Fire and maneuver training will be conducted only on designated/approved range. Review Chapter 17 of reference (a) for additional information on live-fire and maneuver ranges. ROIC/RSO will ensure all individuals and weapons crews have conducted gun drills, BZO/Zero/ISMT training, and fired and passed a qualification course for the weapon/weapon systems they will fire during the live-fire and maneuver exercise.

b. The ROIC/RSO (when required by the Range Cards) will submit a coordinated/detailed plan (SRR) to Range Control. This plan will include, but is not limited to:

(1) A detailed SOM, fire support plan including SDZs for support by fire positions, direction of fire, and cease or shift fire requirements (with all required data).

(2) A list of weapons, ammunition, lasers, pyrotechnics, smoke, and any other items with assigned DODICs to be used.

(3) Unit control measures, signals, including means of communications.

(4) Terrain features and facilities required.

(5) A SRR signed by the unit chain of command and a reviewed and signed ORM worksheet (see Appendix C, ORM and Appendix E, SRR of this Order) and any other pertinent information concerning the proposed live-fire exercise that will assist in evaluating the safety of the event.

c. Prior to Live-fire and Maneuver Training, the ROIC/RSO will:

(1) Must conduct at least two rehearsals/dry run exercises prior to conducting any live-fire and movement/maneuver using the same conditions on the assigned range (e.g., night rehearsal for night attack).

(2) Provide for safety checks of each weapon system, crew served weapon before, during, and after firing live ammunition.

d. Aircraft participating in fire and maneuver training will have communications with a FAC/FAC(A)/JTAC, BLACKBURN or an airspace control agency at all times. Aircraft must conduct a dry pass before conducting live-fire.

e. Only approved and authorized ammunition cleared for overhead fire will be used for fire and maneuver events.

29. Road Crossing Procedures

a. These procedures are in place to enhance safety at paved roadway tactical vehicle crossing sites for both tracked and wheeled vehicles. All commands shall review and change their actions at the crossing sites and adjust unit SOPs to reflect the following procedures. These procedures are also found in reference (ad).

b. Units will post road guards with safety vests at all paved road crossing points. Road Guards will stand on both sides of the paved road and cover both directions from the crossing point. Road Guards will be posted a minimum distance of 100 meters from the crossing point on all 55 mph roads and 50 meters on all other paved roads aboard Camp Lejeune. Tracked vehicles will only cross at the designated concrete crossing pads.

c. Road Guards will wear reflective vests both day and night. Road Guards will have some means of signaling their tactical vehicles to proceed or stop them from crossing the paved road. All tactical vehicles must go admin at the crossing location by turning on all lights/flashing lights before crossing. Road Guards must ensure all traffic is stopped before any tactical vehicle (wheeled/tracked) starts crossing the paved road. Road Guards must always be aware of all oncoming traffic and have an escape route from the roadway in case the traffic does not stop.

d. Road Guards will remain in position for the entire crossing period and will stay in place until the using unit removes all debris (dirt, rocks, and mud) from the paved road.

e. During the hours of darkness or reduced visibility, Road Guards will be equipped with a visible lighting system like flares, distress markers, chemical lights, DOT Reflective triangles and must have a flashlight in their hand pointed in the direction of the oncoming traffic. The safety lighting system shall be placed in front of the road guards at least 10m to warn the oncoming traffic of the Road Guard position.

f. The following precautions will be taken when military vehicles cross paved roads:

(1) One ground controller, located at the crossing site, will post road guards and direct vehicles safely across. Controller will direct tactical vehicles across using hand and arm signals. For single tactical vehicle crossings (tracked or oversized wheeled

vehicle), an A-Driver will dismount and physically ground guide the vehicle across when safe to do so. Two or more vehicles require road guards be posted.

(2) Crossing of paved highways will be an "administrative move". All service drive lights will be used. Vehicles will close to 25-meter intervals before the lead tactical vehicle negotiate the crossing and all other requirements listed in this Order.

### 30. Vehicle Training Procedures (Road March Safety Issues)

a. Allocation of a scheduled TA does not include the exclusive use of that tank trail/gravel road located therein. Any commander desiring exclusive use of any portion of a tank trail/gravel road /paved road must specifically request the desired portion and include a complete justification to Range Control. Unit must provide required road guards. Movement of all vehicles to and from ranges and TAs will be confined to established tank trails as depicted on the current Camp Lejeune Special Training Map. Use only authorized crossing points when crossing hard-surfaced roads.

b. Tracked vehicles operating on paved or hard-surfaced roads are not authorized unless approved by Range Control five days in advance.

c. When moving within TAs, tracked vehicles are not restricted to just tank trails and can move off road in designated areas. However, when maneuvering off the tank trails, sharp turns shall be avoided to help protect the environment and reduce soil disturbance. Tracked vehicles are not authorized in endangered species sites, archaeological sites, areas that have been replanted/re-forested, wet lands, drainage ditches, culvert areas, bridges (except Onslow Beach Bridge when pre-arranged), paved road shoulders, and areas that have sewer/water/gas lines. Tracked vehicles will not maneuver on the range complex except when specific permission is granted by Range Control or approved by this Order. Vehicle damage to firing positions or roads that cannot be repaired by the unit will be reported to Range Control.

d. To prevent damage to improved roads on the Camp Lejeune Training Complex and for safety purposes, only established concrete tank crossings will be used. A list of the tank crossing pads location/grids can be obtained from Range Control.

e. Tracked vehicles on paved roads when approved/pre-arranged must be led by a wheeled vehicle with flashing lights. The unit must have a plan to remove and clean up all dirt, gravel, and mud from the hard-surface road and bridge.

f. Stopping, off-loading of passengers, and scheduled halts will not occur on any hard-surfaced roads. Tactical vehicle events /procedures other than convoy movement are NOT AUTHORIZED on the hard-surface roads of Camp Lejeune.

g. Movement across the active portion of DZs/TLZs is prohibited, unless specifically approved (in writing) by the RCO, or his designated representative. If maneuver on a DZ/TLZ/training facility is approved, the unit will coordinate with supporting engineers to repair any damage caused to all areas prior to area clearance. For planning purposes ruts that are deeper than boot height (six inches) must be repaired or graded and leveled out.

h. COs shall ensure all vehicle operators are qualified and licensed. Operators and passengers will use Kevlar helmets or CVC, seat belts, safety straps, or nets on vehicles so equipped at all times.

i. The primary purpose of establishing tank trails is to control movement of tracked vehicles and tactical wheeled vehicles. These tank trails are considered off limits to civilian-type traffic, except when specifically authorized by Range Control or authorized recreational activity. In such cases, the driver of the civilian vehicle will be issued a Range Control POV Pass as per this Order that indicates authorized dates. Drivers will be instructed to exercise extreme caution, particularly when approaching or passing tracked and tactical wheeled vehicles.

j. Units are authorized to conduct blackout/night vision vehicle training on the tank trails/gravel roads if properly scheduled in RFMSS. Blackout/night vision training is prohibited on any of the hard-surface roads of Camp Lejeune roads of Camp Lejeune except on the Highway 172 CVOT Course if properly scheduled in RFMSS and signed for. At least one person (A-Driver) will not have any night vision devices on during training and act as a safety person. Standard non-tactical vehicles while working to support training or other requirements will have all lights on at all times and upon encountering a unit conducting blackout/night vision training will yield the right of way, stop, or pull over and switch to parking lights only until the unit/vehicles are cleared. Units using night vision devices to drive during hours of reduced visibility will ensure the devices are removed and standard vehicle lights are turned on before crossing any hard-surfaced roads. Using units must ensure the route/routes are clear and safe before conducting any tactical movement both day and night.

k. All tactical vehicle accidents within the RTAs or training facilities must be immediately reported to BLACKBURN, then to the Road Masters, and the unit chain of command. Vehicles halted due to break down will be marked with reflective triangles and or red chemical lights as required.

1. Tactical Wheeled Vehicles with Mounted Crew-Served Weapons. Units are authorized to mount and man crew served weapons stations on all assigned wheeled vehicles as long as all protective gear is worn like helmets, body armor, and eye protection aboard Camp Lejeune. Blank ammunition cannot be mounted, loaded or fired while the vehicle is on any of the hard-surfaced roads aboard the Installation. Once the wheeled vehicle with mounted weapon system enters the scheduled TA on the tank trails/gravel roads the weapon can be loaded with blank ammunition only and used. Live ammunition can only be mounted, loaded and used on the scheduled live-fire ranges aboard Camp Lejeune. If the wheeled vehicle departs Camp Lejeune (off the installation) and travels on civilian controlled roads/highways the weapon system must be directed toward the front of the vehicle and locked down, ammunition removed, and placed in the vehicle. The weapon system operator (gunner) must be inside the vehicle with required safety gear on and seat belt used.

### 31. Onslow Beach Bridge Crossing Procedures

a. The following procedures will be used for all tracked vehicles (tanks/AAVs/ABVs, engineer equipment) crossings of the Onslow Beach Bridge to enhance safety and minimize any damage to the bridge. At least one working day prior to crossing and the day of crossing, the unit will contact Range Control at (910) 451-1240 to ensure coordination has been made with the Bridge Operators at (910) 440-7376. After normal working hours, the unit will contact BLACKBURN directly to ensure coordination with the Bridge Operators and the unit crossing the bridge.

b. Tracked vehicle must cross at a slow speed (five mph or less). All POVs must be stopped before attempting any crossing.

c. Only one tracked vehicle at a time and the tracked vehicle must be in the center of the bridge using ground guides (Front and Back) with safety vests. If a tracked vehicle is towing another disabled tracked vehicle this must be briefed to the bridge operator beforehand.

d. The unit must sweep off any dirt, mud, or gravel from the paved roadway of the bridge after the crossing is completed.

### 32. Public Affairs and Range Operations

a. Military training accidents are high visibility and attract public interest. The public has a right to know about accidents and incidents. However, procedures must be followed to ensure the rights and privacy of personnel involved are not denied, an investigation is not hampered by release of speculative or unrelated remarks, and the information presented to the public is as factual as possible.

b. Basic Requirements

(1) In accordance with this Order, any visits to RTAs and training facilities must be coordinated through Range Control. Camp Lejeune policy states news gathering media may be invited on the installation through the Camp Lejeune PAO. If a unit desires media coverage of training, coordination must be made with the Camp Lejeune PAO and Range Control at least 72 hours in advance for both internal and external media coverage.

(2) In the event of a mishap (accident/incident), personnel must refrain from making comments, answering questions, or engaging in speculation with all members of the media. If approached by a member of the media, personnel involved must refer the question or questions to a Camp Lejeune PAO representative. If there is no PAO representative present, personnel shall firmly and politely reply with "I will refer your query/question to the Camp Lejeune Public Affairs Office".

(3) At no time shall excessive force or abusive language be directed against the news media representative. Separation of news media representatives and personnel involved in the accident or incident shall be accomplished through traffic control points or by sealing off the mishap site to prevent unauthorized release of information. Keep in mind a camera does not need to be focused directly on its subject and video cameras and tape recorders will pick up audio signals quite clearly from a distance.

(4) Following a mishap (Accident or Incident), anyone that identifies himself as a news media representative must be escorted by a Camp Lejeune PAO designated escort or PAO representative from that unit. Make positive identification of official personnel before volunteering information.

33. Bivouacking on a Range or TA

a. Units/commands desiring to bivouac on a RTA must include that information on the RFMSS request in the remarks box. Units must send an e-mail SRR to RSS to request to bivouac on any live-fire range/ETA/MP. Units do not need any special permission to bivouac within a scheduled training area/LZ.

b. When signing for a live-fire range, the ROIC/RSO needs to confirm the unit's bivouac intentions and after arriving onsite, call back a six-digit grid location to BLACKBURN.

c. Units bivouacking anywhere within the Camp Lejeune range complex are required to maintain two way communications with BLACKBURN on frequency FM 34.70 at all times. Radio checks with BLACKBURN must be conducted at 0600, 1400, and 2200 daily.

d. Bivouacking or any type of special event like a Mess Night /Warrior Night inside a training facility like Combat Town, MOUT Lejeune Complex, Enhanced MOUT, and the Mobile MOUT is not authorized. Units must schedule a surrounding TA for bivouacking.

34. John E. Waters, Jr. Wildlife Viewing Area. The John E. Waters, Jr. Wildlife Viewing Area located by the Sneads Ferry Gate/Bridge at grid 7999-2915 near the JE TA is off limits to all tactical vehicles/military training. Units/commands are not authorized to enter this area with any tactical vehicle/vehicles or use this area for any military type training.

## Chapter 6

### Ammunition and Explosive (A&E)

#### 1. General

a. Firing of all direct fire weapons, indirect fire weapons, explosives/demolitions, lasers devices, and all other training devices must conform in all respects to appropriate SDZs and WDZs for that weapon system/ammunition; refer to reference (a) and all other required references. Units firing weapons must ensure the down range area is cleared of all personnel, vehicles, and aircraft before conducting any live-fire. The proximity of major highways, paved roads, tank trails, adjacent ranges, maneuver areas, and boundaries to civilian home and property at Camp Lejeune demands that careful consideration be given to all live-fire ranges and the impact areas for all flat and high trajectory projectiles to ensure that they impact within established, impact areas, approved SDZs/WDZs, and sector of fire for that assigned range/impact area.

b. Any experimental, new weapons, ammunition/ordnance being tested and foreign weapons, training devices, will not be fired or demonstrated on any range at Camp Lejeune without the prior approval from the RCO. The unit must provide Range Control with a Safety Certification from Marine Corps Systems Command, Warfighting Lab, DoD/Department of the Navy Agencies, or any other appropriate military service documentation prior to conducting any live-fire or the use of that device/equipment. MARSOC may also have certifications through United States Special Operations Command, Naval Special Warfare Command (Crane), and United States Air Special Operations Command Foreign Weapons Armory which will be provided to Range Control as required or directed.

c. For further guidance and information on general range safety issues, weapons/ammunition all using units/commands shall refer to reference (a), the current version of the RTAM TECOM Pocket Guide, and this Order/Range Cards. Specific and detail range safety information and guidance /policy for Camp Lejeune is contained throughout this Order.

#### 2. Transportation, Handling, and Storage of Ammunition and Explosives

a. General. A&E, regardless of type, quantity, or location must meet basic minimum safety and security requirements established in reference (ae), Ammunition and Explosives Safety Ashore and reference (p), Marine Corps Ammunition Management Explosive Safety, and reference (af) Marine Corps Physical Security Program Manual, that

provide policies and procedures associated with the handling, storage, safety and security of Class V A&E. Reference (ag), Transportation Safety Handbook for Ammunition Explosives and Related Hazardous Material, governs transportation of A&E and related HAZMAT.

(1) Duds

(a) A dud is ammunition, of any caliber or weight, that has been fired, placed, dropped, thrown or launched, but which fails to function as designed. Duds found outside an impact area, or in a TA, must be reported to BLACKBURN immediately. Do not disturb a dud or UXO in any manner.

(b) The ROIC will report all UXO (dud) ammunition to BLACKBURN.

**NOTE:** Demolition materials like C4 or TNT which fail to function are misfires, not duds.

(2) Misfires and Hang Fires

(a) General. A misfire is defined as the failure of a primer or the projectile propelling charge to function, a line charge or demolition material which fails to function. In the interest of safety, all misfire procedures shall be completed on the range.

(b) Misfire procedures in training manuals for the appropriate weapon system will be followed. In the event misfires present an immediate hazard to personnel or a ceasefire is necessary, they will be reported to BLACKBURN.

(c) Hang Fire. Is an undesired delay in the functioning of a firing system. A hang fire for a rocket occurs if the rocket propellant is ignited by the firing impulse, but the rocket fails to exit the launcher within the expected time frame. A hang fire occurs when a tube-launched, optically-tracked, wireless-guided(TOW) Missile fails to launch, but internal components of the missile, such as batteries and gyros, are initiated. If a TOW Missile has a hang fire contact BLACKBURN to request EOD assistance. A TOW Missile hang fire will not be transported off the range.

(3) The ROIC of the firing unit will ensure accurate records are kept on the number of rounds fired, the number of duds experienced, and the location of the duds. At the conclusion of each day's firing, the number of duds will be reported to BLACKBURN as part of the Range Utilization Report by the RSO.

(4) Duds will not be destroyed, moved, or disturbed in any way, except by EOD personnel.

(5) Only Camp Lejeune EOD personnel or certified EOD contractors working for the government are authorized to dispose of duds. EOD personnel will notify BLACKBURN prior to entering any impact area.

(6) Misfired ordnance will have all safety pins and devices reinstalled, and will be replaced in its original shipping container before being returned to the ASP.

(7) ROIC and RSO are not authorized to clear any weapons systems or apply immediate action to weapons systems unless someone is in danger of being injured or killed.

### 3. Explosive Ordnance Disposal

a. EOD is organized, staffed, and equipped to support training on the live-fire ranges and TAs at Camp Lejeune and MCAS New River. EOD is under the cognizance of the Director, RCD. Emergency Assistance is available on a 24-hour basis to all units/organizations located at Camp Lejeune through BLACKBURN. Local law enforcement agencies must request MCIEAST-MCB CAMLEJ EOD support through BLACKBURN via the Installation/Base PMO.

b. The Range Control EOD Team operates within the Camp Lejeune Military Complex or other locations as directed. EOD is only equipped with Motorola Radios to communicate with BLACKBURN. BLACKBURN will relay information to and from the ROICs, RSOs using green gear on 34.70 FM. EOD Technicians will operate in accordance with this Order and all applicable references pertaining to EOD operations. When involved in demolitions they will adhere to applicable warnings and secure from operations as directed by safety/weather as required. The senior EOD Technician onsite will make the final decision to secure from operations in the event of foul weather. He will inform BLACKBURN of his decision and ensure the range/impact area is "COLD" before leaving.

c. Routine requests for EOD support will be submitted in writing at least 10 working days in advance of the requested date for support to Director, RCD. Range Control scheduling will notify EOD and de-conflict with any other units. The day prior to requested support or last working day before weekend support, the unit shall contact EOD directly for final coordination. The EOD Office is located at Building G800 at Camp Geiger and can be contacted during normal working hours at (910) 449-0558/0334. After normal working hours, weekends, and holidays contact EOD through BLACKBURN. Examples of routine EOD support are:

(1) Escort vehicles through impact areas for range maintenance, target replacements, EMD (Limited/Controlled), Wildlife Management (Limited/Controlled), or others as directed/scheduled.

(2) Provide unclassified information on ordnance. This information is available to the ROICs and RSOs who desire a better understanding of the ordnance they will encounter when firing. This information may be obtained at Building G800 during normal duty hours, Monday through Friday.

d. Emergency Support. Contact EOD through BLACKBURN at 34.70 FM or (910) 451-3064/4449. Examples of emergency support are:

(1) Located UXO aboard Camp Lejeune and MCAS New River installations.

(2) Lodged, stuck, or hung ordnance that cannot be removed from any gun/weapon system, or aircraft safely by the using unit.

(3) Hazardous munitions not serviceable or damaged and cannot be turned into the ASP or Station Weapons.

(4) Any suspicious item, ordnance or IED found or placed on or near training facilities or ranges and poses a threat to personnel and property.

(5) Any suspicious item, ordnance, or IED found off-base, shall be reported to the PMO or MCIEAST-MCB CAMLEJ CDO at (910) 451-2414. Normally the local police department, fire department, or sheriff will contact Base PMO initiating the EOD request/support.

e. Required EOD Support

(1) EOD must be "on call" when high explosive hand grenades are thrown on any hand grenade range for the safe disposal of UXO incurred during scheduled training. When a unit schedules a grenade range, Range Control will contact EOD to coordinate this support.

f. UXO. UXO within a designated impact area, with the exception of hand grenade ranges, do not require an immediate EOD response. Duds and other UXO shall be reported to BLACKBURN. UXO outside an impact area poses a threat to personnel and property and must be reported immediately to BLACKBURN or directly to EOD. Units must include an exact location of the UXO and provide a guide if possible. UXO shall be clearly marked with a visible item approximately five ft. away; all personnel shall be kept clear of the area. **DO NOT DISTURB UXO IN ANY MANNER.**

g. Reporting of Abandoned Ammunition

(1) Using units are responsible for the transportation, security, and return to the ASP of all abandoned ammunition discovered aboard Camp Lejeune that is transportable and not considered UXO. Additionally, the unit returning the ammunition is responsible for the submission of a MLSR.

(2) In the event civilian or military personnel discover any abandoned ammunition or explosives contact the PMO at (910) 451-2555/2556/2557 and BLACKBURN at (910) 451-3064/4449.

(3) All ammunition found on an installation will be considered extremely hazardous and not handled by unauthorized personnel. MCIEAST-MCB CAMLEJ PMO will coordinate with the ASP for turn-in of the ordnance, for all items .50 cal and below. MCIEAST-MCB CAMLEJ EOD will be contacted immediately to recover the munitions above .50 cal.

h. Explosive Actuated Tools. Explosive actuated tools may be used in the performance of proficiency training by EOD aboard Camp Lejeune and MCAS New River and during Anti-Terrorism/Force Protection Exercises. This Order and all applicable EOD publications regarding safety will be followed. EOD training with these tools, such as .50 caliber de-armorer, Percussion Actuated Neutralizer, water jet remote opening device, robot disrupters and rocket wrench, must have the approval of the RCO. Request for approval will contain the following:

(1) Date, Time, and Location;

(2) Exact placement, quantity, and composition of set-up (Electric or non-electric); and

(3) Measures for control and safety of personnel, property, and surrounding area (Distance X).

i. EOD Range Sweeps. Impact areas are periodically swept by EOD to remove UXO and in conjunction with semi-annual retargeting operations for purposes of neutralizing hazards associated with UXO. Ranges that have a high frequency of use, or accumulate an excessive number of UXO will be swept as often as scheduling permits. The OIC/SNCOIC of the Base EOD Team will schedule such sweeps and inform the RCO of the results.

#### 4. Hazards of Electromagnetic Radiation to Ordnance

a. Hazards of Electromagnetic Radiation to Ordnance (HERO) concerns the accidental actuation of electrically initiated ordnance due to radio frequency electromagnetic fields.

b. Electro Explosive Devices (EEDs). EEDs such as squibs, blasting caps, igniters, and similar explosive devices are particularly susceptible to initiation when exposed to radio frequency fields. These devices will remain packaged and in completely enclosed metal containers until just prior to use.

c. A&E must be protected from the hazards of Electromagnetic Radiation Emission Control to ordnance. It is imperative that all commands transporting, or training with A&E, especially aviation ordnance, comply with the requirements of references (ah) and (ai).

d. For a detail list of HERO type ammunition see reference (aj) for most often used HERO sensitive DODICs; this list is not all-inclusive and may not include new items. Units are responsible to understand all capabilities and limitations of the ammunition they train with. Refer to references (k) and (ah) for a full list of HERO Unsafe/Susceptible Ordnance.

## 5. Ammunition

a. Ammunition and explosives (to include pyrotechnics) will be positioned to minimize potential for ignition from external sources, explosion, rapid burning or sympathetic detonation and will be located, staged, and stored in accordance with the requirements of the current edition of referene (ae) for compatibility and safe separation distance. A&E shall be staged to best minimize the effects of weather. Ignition sources such as matches, lighters, or other spark-producing items will not be located near ammunition, pyrotechnics or explosives. Fire extinguishers and/or firefighting equipment will be maintained near the A&E.

b. Ammunition will not be removed from the ranges except as authorized by published orders and returned to the ASP with the appropriate packaging and documentation.

(1) Ammunition will never be abandoned, destroyed, fired indiscriminately or otherwise disposed of.

(2) Altering ammunition or assembly of explosive components to inert rounds is prohibited.

(3) Any attempt to use ammunition in an unorthodox manner or to purposely attempt to make it malfunction is prohibited.

(4) Use of non-standard munitions/ammunition requires prior approval from the RCO.

c. Training evolutions that require ammunition and/or explosives to be staged must be staged in areas that are temporary in nature. It is not intended that these locations require approval by the DoD

Explosives Safety Board if ammunition and explosives are in total support of a specific training mission. Ammunition staged on a range for training must be positioned in a manner such that ensures the required explosives safety quantity distance for the N.E.W. of A&E present does not exceed the range boundary. A&E brought to a range that are consistently drawn and fired and never left in a storage mode may be staged in support of that training.

d. Blank and live ammunition will never be mixed together. Strict accountability and security procedures will be employed to ensure they remain separate at all times. Blank and live ammunition will not be stored together or issued from the same location. If the use of blanks is necessary the ROIC/RSO/CO will ensure separate storage sites are utilized for blanks and live ammunition and it is supervised at all times.

e. The Blank Firing Adapter (BFA) is a necessary component for operational safety while firing blank ammunition for weapons systems designed to accept BFAs.

(1) The safe separation distance for firing blanks at personnel is five meters. Less than five meters separation distance could result in serious injury. Less than three feet separation distance could result in fatality.

(2) **Blanks will never be fired after live-fire training on the same day.** If the training requirement mandates blank fire to be conducted on the same day following live-fire the unit must coordinate with RCD prior to the training event and have strict control measure in place and supervised/enforced at all times.

(3) The ROIC/RSO will ensure all gear, ammunition sources, and weapons are inspected between live-fire and blank fire training.

## 6. Chemical Ammunition and Smoke

a. The use of lethal or incapacitating chemical agents in training is prohibited aboard Camp Lejeune.

### b. Riot Control Agent (RCA)

(1) Types of RCAs authorized for use at Camp Lejeune are limited to CS, CSX, CS-1, CS-2, and CR.

(2) The use of CS in a TA must be indicated/scheduled on the RFMSS TA Request. The unit must provide the required 5711/5702 personnel that are certified on the Command Certification Letter to sign for the event. This must also be followed up via E-mail Special Range Request (ESRR) from the unit to the MCIEAST-MCB CAMLEJ, RCD/RSS at least five days before the scheduled CS training event to ensure

the location in the TA does not conflict with the installation boundaries, paved roads, that it is open air release or being conducted in a tent (Field Expedient Gas Chamber) or the current Fire Condition.

(3) Use of RCAs in TAs requires the supervision by CBRNE personnel specially trained (5702/5711) in field behavior, individual protection, and first aid for RCAs per reference (ak).

(4) RCAs will not be used under conditions that are dangerous to life, property, or endangered species like the RCW. Minimum safe distance to TLZs is 500 meters. Minimum safe distance to on-base public roads, any built-up areas to include the MOUT Complexes/FOBs and endangered species sites is 500 meters. No RCA will be used within 1000 meters of the installation boundaries to include waterways and the New River. CS can be used on tank trails as long as the distance from paved roads is more than 500 meters and the surrounding TAs are scheduled and signed for by a 5702/5711. Road guards shall be posted to prevent other units/vehicles/personnel from entering the TA/tank trail. CS will not be used in TLZs unless the TLZ is scheduled in RFMSS and signed for by the using unit as a CS event.

(5) All COs conducting field exercises with RCAs must conduct an ORM to include, but not limited to: heat conditions, safety, training of Marines/Sailors, protective gear, open wounds, and contact lenses, and all other requirements set forth in reference (ak) on CBRNE Training. This will also include the restrictions of driving POVs within one hour after a CS training event.

(6) CS is not authorized inside the MOUT Lejeune Complex, E-MOUT, Mobile MOUT, Combat Town, UTFs, and all FOBs. CS/Smoke is not authorized in the entire GSRA.

(7) Units required to conduct annual CS training using a tent (Field Expedient Gas Chamber with CS Capsules DODIC K765 Only) must have an assigned 5702/5711 MOS qualified Marines present that are listed on the Command Certification Letter. The event must be scheduled in RFMSS and approved in RFMSS as a CS event within GSRA Training Areas and must also be approved via an e-mail special range request would be approved/authorized.

c. Smoke/Smoke Pots. The use of smoke grenades/smoke pots can pose health and safety issues. Follow the guidelines set below:

(1) Smoke will not be used inside any enclosed structures, buildings, tunnels, or caves.

(2) Smoke will not be used in public demonstrations, displays or ceremonies unless positive dissipation of the smoke can be assured with minimal exposure to non-participating personnel.

(3) Special care must be taken when using hexachloroethane mixture or HC smoke. Ensure appropriate protection is provided and consideration is given to weather conditions, and potential downwind effects. Personnel will carry a protective mask when participating in exercises that include the use of HC smoke.

(4) HC smoke is not authorized for use within the RCW cluster sites. Cluster sites are marked with a single band of white paint on perimeter trees.

(5) Smoke pots must be kept dry and will not be ignited during visible precipitation. Minimum safe distance to a smoke pot is 30 meters. Smoke pots will only be used after checking wind direction to ensure the smoke will stay within the boundary of Camp Lejeune and not impede any traffic aboard the Installation.

7. Simunitions, Special Effects Small Arms Marking System (SESAMS), Close Combat Mission Capability Kit (CCMCK), and Ultimate Training Munitions (UTM), and I-TESS-II Gear/Equipment

a. Though simunitions SESAMS/CCMCK/UTM training is less dangerous than live-fire, such training still holds the possibility of injury to users and others in the TAs/facilities. SESAMS/CCMCK/UTM rounds travel at approximately 400 to 500 ft. per second and can cause damage to soft, unprotected tissues including the eyes, throat, genitals, and exposed skin. The unit commander is responsible for the safe use of these innovative training systems/devices at all times. A SESAMS /CCMCK/UTM training event is treated just like any other live-fire event and must be signed for by a ROIC that is certified in those devices and all other live-fire safety requirements are in place, enforced and supervised.

b. Usage. All requests to use SESAMS/CCMCK/UTM will be initiated via RFMSS and must include a qualified ROIC and RSO on those devices. Units can request a specific location such as Combat Town, MOUT Lejeune Complex, E-MOUT, Mobile MOUT, UTFs, a TLZ/GP or an entire TA. Scheduling SESAMS/CCMCK/UTM in the MOUT Lejeune Complex, Combat Town, Mobile MOUT, E-MOUT or a TLZ/GP will include an area that extends to 150 meters from that facility for un-protected personnel around the training site that must be secured/controlled by the using unit. This distance provides a buffer area to mitigate the chance for inadvertent contact or injury. The daily RFWO Message will highlight training locations where SESAMS/CCMCK/UTM will be used. This will serve as warning to all other personnel/units of this type of training activity. Other units are authorized within the MOUT training sites as long as the 150 meter rule is in place, enforced, and coordination has taken place between the two or more units. SESAMS/CCMCK/UTM are not authorized to be used in any FOBs aboard this Installation.

c. Safety Guidance. The unit commander/ROIC/RSO is responsible for conducting training on SESAMS/CCMCK/UTM characteristics, hazards, and safety procedures before conducting any SESAMS/CCMCK /UTM training. The unit commander will ensure no live/blank ammunition is located in the SESAMS TA.

(1) Safety gear will be used by all participants:

(a) Full face/eye protection; only the Scott Extreme Stalker Mask, JT Spectra System Mask, or MCU-2A/P gas mask (CQB gas mask) with outer plastic eye shields and canisters attached are approved for use.

(b) Neck and throat protection such as balaclava, towel, neck scarf, flak jacket attachment, or commercial throat protection like the FX 8000 Protective Throat Collar.

(c) Body/Skin/Groin Protection/Sleeves Down. Camouflage utilities, helmets, body armor, and gloves will be worn during simunitions/SESAMS training events. The groin can be protected with the flak jacket groin attachment, an athletic cup, or a towel placed inside the trousers.

(2) A Government safety vehicle and properly equipped corpsman will be present during all SESAMS/CCMCK/UTM training. If the safety vehicle or corpsman departs, all SESAMS/CCMCK/UTM training will cease.

(3) All safety requirements listed in reference (a), technical/operator manuals, references, pamphlets for SESAMS/CCMCK/UTM and this chapter of the Order will be in place, enforced, and supervised by the ROIC/RSO.

(4) 9mm SESAMS are not authorized to be used during weather when temperatures are below 38°F and CCMCKs (5.56mm) when temperature are below 18° F.

d. Rules of Engagement (ROE)

(1) No intentional shots to the head or face or below the waist (ROE). No shots will be taken at a distance closer than (7) seven feet/2 meters for the 9mm device and thirteen 13 feet/4 meters for the 5.56mm device.

(2) Prior to firing SESAMS/CCMCK/UTM, clear identification of the target must be made, to include identification that the target is wearing appropriate facemask and all protective clothing (required PPE).

(3) Full face and eye protection will be worn until the ROIC or RSO ensures all weapons are holstered, rendered safe, and a "CEASE-FIRE" call has been given.

(4) All personnel within 150 meters of the event must be in the required PPE to include support personnel.

e. Ground Safety Measures

(1) The using unit will secure a perimeter 150 meters around the SESAMS training location to deny non-exercise personnel entry into the SESAMS TA by placing out road guards or barriers. The unit would be required to post road guards/security to prevent someone from entering an area where SESAMS/CCMCK/UTM are being used.

(2) SESAMS will not be used within 250 meters of any paved, hard-surface road used by civilian traffic (e.g., Sneads Ferry Road, Marines Road, Lyman Road, Highway 172, and Onslow Beach Road).

f. Communication Procedures. The ROIC or the RSO will call into BLACKBURN to request permission to go "HOT" with simunitions exactly as if requesting to go "HOT" on a live-fire range. Once BLACKBURN provides the simunitions/SESAMS/CCMCK/UTM brief and authorizes the use of simunitions/SESAMS/CCMCK/UTM. The ROIC/RSO will make normal radio checks every 30 minutes (on the hour and half-hour) stating: "Combat Town, TLZ Gull, TA Hotel-Hotel simunitions/SESAMS/CCMCK/UTM in use." This will notify all other units in the area that simunitions/SESAMS/CCMCK/UTM are in use in that area.

g. Upon completion of training, the ROIC/RSO will request to go "COLD" and report number of rounds expended, number personnel trained, and conduct a police call. Once BLACKBURN places the unit in a cold status, all simunitions/SESAMS training is terminated for the day. All weapons will be checked by the ROIC/RSO and all SESAMS/CCMCK/UTM ammunition collected/turned in.

h. Range Training and Instrumented Systems Support (RTISS). Multiple Integrated Laser Engagement System (I-TESS-II), Instrumented Tactical Engagement Simulation System (ITESS), Training IED (TIED), Improvised Munitions Explosive Effects Simulator System (IMEESS), Training Counter Radio-Controlled Electronic Warfare (T-CREW) and SESAMS/CCMCK Kits with required PPE are available from checkout through the Tactical Engagement Simulation Center (TESC). Personnel are required to be trained on the devices prior to obtaining the

equipment. Contact the TESC Building Number TP-448 warehouse (451-9009) on Piney Green Road to schedule training or obtain the equipment. This service is provided at no cost to Marine units assigned to Camp Lejeune.

8. Small Arms

a. General

(1) Small arms are defined as man-portable, individual, and crew-served weapons systems of .30mm and below, to include rifles, pistols, shotguns, infantry automatic rifle, squad automatic rifles, sniper rifles, sub-machineguns, and ground mounted, vehicle mounted and rotary-wing aircraft mounted machineguns. All ROICs/RSOs/COs shall review all TMs/Operator Manuals and all other required references on the weapon, weapon system, and ammunition before conducting any live-fire training with small arms and be certified on that weapon/weapon system.

(2) Ensure all safety rules/policies/procedures are followed, enforced, and supervised by the command/unit in accordance with Chapter 4 of reference (a) and this Order/Range Cards at all times.

(3) Ensure all weapons/weapon systems have the proper Pre-Firing Inspection/Limited Technical Inspections (PFI/LTIs) before conducting live-fire. All requirements for PFI/LTIs are based on TM 4700. Weapons shall be properly cleaned and lubricated with the proper/authorized lubrication before conducting any live-fire training.

(4) Ensure all personnel within the designated hazard areas wear proper eye/hearing protection, flak jackets, and helmets as required unless authorized by a formal written request for deviation of this policy via the unit's chain of command to the CG MCIEAST-MCB CAMLEJ via the RCO at least 30 days in advance.

(5) Scheduled units conducting a M16/M4/M249/M27 (5.56mm) or M40A5/M110 (7.62mm) static/prone position BZO/Zeroing live-fire events are authorized to remove/not use helmets and flak jackets for this type of training activity only. This has to be strictly controlled, enforced, and supervised by all ROIC/RSO/COs at all times.

(6) Units are not authorized to mix blank ammunition with live ammunition on any RTA or training facility aboard Camp Lejeune.

Ensure all BFAs have been removed and checked before conducting any live-fire with live ammunition or have been properly attached for all blank ammunition firing events. Ensure strict accountability of all blank/live ammunition at all times; they must be staged and issued separately. The unit must have and use the proper BFAs on the weapon when firing blank ammunition at all times. BFAs must be painted a bright color like red, yellow, or orange and placed on the correct weapon for that color. Units must ensure all ammunition sources like magazines, feed trays are checked, cleared, and inspected by the ROIC/RSO.

(7) All personnel will be knowledgeable on immediate action/misfire procedures for the weapon, weapon system, and ammunition as per the required operator manuals being used.

(8) Overhead or flanking fire is authorized only as prescribed in reference (a) and this Order. Small arms ammunition must be cleared for overhead fire per the required ammunition orders and messages.

b. Machineguns

(1) Field firing for machineguns includes the firing of 5.56mm linked, 7.62mm linked, and .50 caliber linked machineguns from ground, vehicle mounted, or aviation door gunnery.

(2) Ammunition will have the required security, be stored, and accounted for properly on all live-fire ranges per the required references.

(3) Before the start of any live-fire event, the ROIC/RSO will ensure that a cleaning rod and dry patch has been run through the bore from the muzzle of each gun/weapon.

(4) Units firing machineguns shall ensure the complete SDZ is cleared of all personnel before going hot.

(5) All personnel within the designated hazard areas must wear proper eye/hearing protection, flak jackets, helmets, and gloves.

(6) No weapon will be loaded until a command to do so is given by the ROIC/RSO. The ROIC/RSO shall check direction/azimuth of fire with a compass; the weapon systems must be pointing down range when

loading ammunition. Tripods/Bipods may need to be sandbagged or dug in to ensure they stay in the proper direction of fire/approved SDZ. The using unit must ensure proper separation distances as required for all machineguns.

(7) No one is allowed forward of the gun for any purpose unless/until authorized by an ROIC/RSO. The ROIC/RSO will not allow anyone forward of the machinegun until they have confirmed that each weapon is in a Condition 4 and that all other safety rules are in place and enforced by all personnel. This does not apply to tactical exercises involving blank fire.

(8) Machineguns may be fired over individuals wearing the proper safety gear in firing exercises provided the ammunition used is cleared for overhead fire and the provisions of reference (a) and appropriate firing tables, operator manuals, FMs, and TMs are followed. Camp Lejeune does not have any ranges specifically designed to support overhead machinegun fire.

(9) After machineguns are fired, and prior to dismounting or removing them from firing positions/vehicle mount, each gun will be inspected by the ROIC/RSO/ARSOs/PSOs to physically and visually confirm it is unloaded properly and in Condition 4.

(10) The following actions are required for machineguns being mounted on all vehicles. Vehicle must be stationary, vehicle engine must be turned off, hand brake set, wheels chalked/blocked and the driver must be out of the vehicle unless schedule for a Live-Fire and Movement event on SR-7, SR-8, SR-9, or SR-10. The T&E must be attached. Firing free gun is authorized by SRR only.

(11) During Fire Readiness Conditions 5 and above units are restricted from delinking ammunition. The units will request straight ball ammunition from the ASP. Units are not authorized to delink ammunition. The ASP is stocked with straight Linked Ball Ammunition and is available on request once the fire condition requires it. If this range is impacted by a Fire Condition Five or higher, the using unit will have to train with the required straight ball ammunition. In the event that straight ball is not available from the ASP the tracer rounds will have to be removed from the belted ammunition after getting authorization from the ammunition chain of command for 5.56mm/7.62mm linked. Tracers cannot be used on the ranges when the Base/Installation is in a Fire Readiness Condition 5 or higher. Delinking of caliber .50 cal. ammunition 4 API and 1 API-T is not

authorized. For additional guidance see Navy and Marine Corps Ammo Information Notice 064-2012, Policy for Delinking and Accountability of Delinking Small Arms Ammunition (DODIC A064, A131, A151, and A576).

(12) The .50 cal. sniper rifle/M82/M107 round DODIC A606 is not authorized on any of the Camp Lejeune ranges except G-29B (Limited Direction of Fire) which requires Highway 172 to be closed.

#### 9. Mortars

a. Mortars (60mm, 81mm, and 120mm) are not cleared/authorized for any overhead fire. Mortars will not fire over numbered or named highways without an approved SRR and appropriate road closure with assigned road guard/gates/detour signs. Requests to fire from other than established MPs will be handled with a SRR at least 10 working days in advance.

b. Mortars shall be fired only into G-10 and K-2 impact areas from approved MPs listed in Figure 6-1. The minimum range for 60mm mortars is 300 meters, the minimum range for 81mm mortars is 400 meters, and the minimum range for 120mm mortar is 600 meters. The using unit must ensure that the proper safe separation between all mortars on the firing line per the mortar system references.

c. All Marines involved in mortar live-fire shall wear approved protective gear such as helmets, flak jacket, and hearing/eye protection.

d. A Forward Observer is required for all mortar live-fire (except when conducting Direct Lay and Handheld Modes) to observe and adjust the impact of all rounds being fired and ensure that all mortar rounds impact in the scheduled impact areas.

e. Increments removed before firing will be placed in a small metal or wooden covered container located close to the firing cannon/mortar. Once they receive the End of Mission (EOM) command the unused increments are moved to a metal or wooden covered container outside the firing position at a safe separation distance of 25 meters or more away from the weapon. Unused increments will be handled and destroyed in accordance with reference (a1) (Old FM 23-90). Burning of increments/powder bags must be in accordance with fire regulations. Firefighting equipment must be on hand during all fire conditions. Units burning increments will notify BLACKBURN before and after the

training event. The MP must be in a "HOT" status before burning increments.

MP	GRID LOCATION
MP 1, G-10 Impact Area	18S TD 90373755
MP 2, G-10 Impact Area	18S TD 91313759
MP 3, G-10 Impact Area	18S TD 92493731
MP 4, G-10 Impact Area	18S TD 93423739
MP 5, G-10 Impact Area	18S TD 95143719
MP 6, G-10 Impact Area	18S TD 95433535
MP 7, G-10 Impact Area	18S TD 89763471
MP 8, (In-Active MP)	18S TD 92603186
K-500, K-2 Impact Area	18S TD 78253550

Table 6-1--MPs and Locations

f. All mortar safety checks for 60mm/81mm/120mm mortars are mandatory before firing any live ammunition (HE/WP/RP/ILLUM/TP). Mortar sights will be bore sighted before any live-fire training. Ensure mortars have completed bore scope and pullover tests as required.

g. The ROIC/RSO will calculate, by charge for each mortar, the left and right deflection limits and the minimum and maximum quadrant elevations that can safely be fired from that position with rounds landing only in the impact area. Units firing mortars will have applicable firing tables for that weapon system and type of ammunition on the range during the live-fire event.

h. The ROIC/RSO of the live-fire event will ensure each mortar leader has in their possession a copy of the safety information, as calculated by the RSO/Fire Direction Control (FDC). It will be written on a range card in the form of a SAFETY "T". The Fire Direction Officer/SNCO/NCO/FDC will have a copy of the safety information for that mortar unit/mortar system/ammunition. Use of a Mortar Ballistic Computer (MBC) is authorized. In addition to the MBC, a secondary means that it authorized to check the primary MBC with another MBC as the secondary means of computing mortar data must be used and in place and checked against the primary MBC before conducting any mortar live-fire.

i. Firing restrictions and limitations in reference (am) apply to all cartridges and fuses. Cartridge M720 will not be fired in the 60mm in the hand held mode greater than Charge 1.

j. LAV-Mortar variants will observe all guidance, guidelines, and restrictions as set forth in reference (an) on the LAV mortar variant.

k. When the FDC calculates the firing data, the data will be checked against the "SAFETY T" by the appropriate persons for each mortar to ensure that the data calculated is safe and that the data placed on the mortar is safe/correct. Only then can a round be fired.

l. When computing firing data, the MBCs shall match exactly for range and deflection. When using an M16 plotting board to verify the firing data from the MBC, deflections shall check within 10 mils and ranges shall check within 25 meters.

m. At no time will any mortar system conduct live-fire into the UCAS facility in the G-10 Impact area.

#### 10. Hand Grenades

a. Before live hand grenade training begins, all personnel must be knowledgeable of the grenade being used and proficient in the safety precautions/immediate action procedures for handling and throwing live hand grenades. Personnel being trained must successfully throw at least two practice grenades prior to throwing a live grenade and rehearse/conduct immediate action procedures for a dropped grenade in the throwing pit. Additional information on all grenades, grenade live-fire training can be obtained in reference (a), Grenade and Pyrotechnic and Chapter 5 of reference (a).

b. Protective helmets, body armor, eye protection, and hearing protection are mandatory on all grenade ranges.

c. Live hand grenades will only be thrown on dedicated hand grenade ranges (F-6, K-510, and MAC-3). Once the safety pin has been pulled, the grenade must be thrown. Do not attempt to re-insert the safety pin.

d. Only one high explosive hand grenade will be thrown at a time on the grenade range. Do not make unauthorized modifications to any hand grenades. Hand grenades will not be milked or delayed before throwing and at no time will hand grenades be taped.

e. Grenade impact areas contain aiming posts for throwers to use as targets/aiming points. Additional targets will not be placed in grenade impact areas by the using units; they create an additional hazard for EOD personnel during render safe and destruction operations of UXO/dud grenades. Throwers must consider the flight path of the grenade; the grenade must detonate within the impact area of that range. Do not throw the grenade beyond the impact area or outside the designated lateral limits.

f. Live grenades will not be thrown into standing water, mud, snow, or dense vegetation. Duds in such areas cannot be cleared and will result in closure of the range or that lane.

g. White phosphorous grenades are not authorized to be thrown on any of the grenade ranges.

h. Range Control scheduling will contact EOD at least five working days prior via an e-mail with an attachment of the scheduled dates, ranges and times for the following week to coordinate "ON-CALL" EOD support if needed or required. It is the responsibility of the ROIC/RSO to notify BLACKBURN when they occupy the range so a EOD team can be placed on alert if needed. The "ON-CALL" EOD team will be standing by to clear UXO/duds/low order detonation if called by BLACKBURN. BLACKBURN will notify EOD that the using unit had a dud/low order detonation/UXO grenade and place the unit in a "CHECK FIRE" status. Once the dud/low order detonation/UXO grenade has been taken care of by EOD the unit will be placed back into a "HOT" status. Once the unit has gone "COLD" for the day the unit must confirm to BLACKBURN that all grenades are accounted for and functioned properly down range, then the ROIC/RSO is authorized to initiate the mandatory police call and range maintenance of the down range impact area.

i. Hand grenade duds/low order detonation/UXOs will be rendered safe or destroyed only by EOD personnel. They will not be marked, handled, or moved except by EOD personnel. EOD will observe a minimum of a 30-minute waiting period from the time of the report to clearing a dud/low order detonation/UXO grenade. When a grenade fails to function, the ROIC will:

(1) Cease throwing hand grenades into the affected impact area. If the impact area is split by a protective berm or berms, throwing may continue in the half of the impact area unaffected by the dud/low order detonation/UXO with permission of BLACKBURN.

(2) Notify BLACKBURN of the dud/low order detonation/UXO live hand grenade, request to go into a "CHECK FIRE" and request EOD support.

(3) Ensure all personnel remain under cover until EOD personnel have cleared the dud/low order detonation/UXO.

(4) Standby to render assistance to EOD personnel as to the location of dud/low order detonation/UXO grenade.

(5) After the dud/low order detonation/UXO has been cleared, request permission from BLACKBURN to go "HOT," and continue throwing hand grenades.

j. Cease all handling and throwing of all live hand grenades one hour prior to sunset.

k. Do not move down range unless accompanied or cleared to do so by BLACKBURN or EOD.

l. Units shall delay training during inclement weather (i.e., thunderstorms, rain, snow, sleet) that would interfere with the grip, and/or throwing of grenades or standing water in the throwing pit.

m. Do not throw practice grenades from the live-fire pits. Practice Grenades will only be thrown from the practice pits.

n. After all hand grenades are thrown and the unit has confirmed that all hand grenades have functioned properly the using unit must pick up all ammunition dunnage (i.e., pins, spoons, clips down range), fill in all holes and level out the impact area before calling for inspection by a Range Inspector.

#### 11. 40mm Grenade Launchers

a. Personnel firing the 40mm M203, M32A1, and MK19 40mm linked grenade launchers shall be instructed in the proper use, safety precautions, and immediate action procedures for the launcher prior to firing live and training practice rounds. A minimum of six meter separation will be maintained from the firing positions and between weapon systems. Minimum target engagement range is 310 meters with 40mm linked HE/HEDP and 75 meters for training practice ammunition for MK-19. When firing from a vehicle mounted with a MK-19, ensure the vehicle remains stationary with the T&E mechanism emplaced and the driver must be out of the vehicle, vehicle engine is turned off and must be chocked. Ensure the weapon system is properly mounted and locked down. Additional information can be obtained in Chapter 5 of reference (a), reference (ap), for the M203/M32 and reference (aq) for the MK-19.

b. Protective helmets, body armor, hearing and eye protection are mandatory when firing 40mm HE/HEDP. Proper eyewear protection (ballistic goggles) sleeves down and gloves must be worn when firing the MK-19 at all times.

c. HE/HEDP (M203/M32) grenades will only be fired on authorized ranges and into a dedicated impact area. Minimum engagement ranges for HE/HEDP grenade ammunition is 130 meters for HE and 165 meters for HEDP from point of detonation for the M203/M32.

d. Dud/UXO 40mm HE/HEDP rounds are extremely dangerous due to sensitive fusing and shall not be disturbed in any fashion. Report all duds with location to BLACKBURN; do not enter the impact areas.

e. 40mm illumination/smoke (signaling devices) rounds can be used in the TAs for unit training (except inside any MOUT complex, E-MOUT, Mobile MOUT complex, and Combat Town Facilities). Ensure all safety rules and weapon conditions are supervised and enforced with the M203/M32 40mm weapon systems. Ensure observance of all safety rules during the fire season to prevent forest fires. Using units will be

required to police up all debris like expended rounds, parachutes. Unit will be required to police up expended Training Practice TP from the M203/M32 and MK-19 round debris down range depending on the range used.

12. Guided Missiles and Rockets (Ground Systems Only)

a. The TOW IIB, MK153 SMAW, M136 AT-4, M72A7 LAAW, M98 Javelin, M3 Carl Gustaf 84mm MAAWS to include all sub-cal training devices are the only guided missiles and rockets approved for use aboard Camp Lejeune. Firing units will recover the wire from the TOW missile before departing ranges like SR-7 and SR-10. When firing the TOW Missile the Kevlar Protected Blanket shall be used based on current references and Chapter 7 and Table 7-1/Notes of reference (a).

b. Before firing, the surface danger zone and back blast area will be cleared of personnel, material, vehicles, and vegetation when firing MK-153 SMAW/M72A7 LAAW/M136 AT-4/TOW IIB/M98Javelin/M3 Carl Gustaf 84mm MAAWS. Firing the SMAW, AT-4, or the M72A7 LAAW from fighting hole/fighting position or the prone position is not authorized.

c. All loading preparations for firing and unloading will be done on the firing line of the scheduled Rocket Range, with the weapon system pointed down range. Rocket systems will not be loaded behind the firing lines. Firing of anti-tank rockets over personnel is not authorized. Single hearing protection is required. Pre-Fire inspection of all rockets/missiles is required.

d. Care shall be taken with all training devices, i.e. 9mm Trainers/Miles/Javelin/21mm LAAW sub cal. training devices. Ensure all safety procedures and PM (Care/Clean) in the weapons system TMs/FMs/TCs are followed, enforced, and supervised.

e. TOW Missiles and aircraft rockets fired from an airborne platforms is discussed in more detail in Chapter 4 of this Order.

f. All units firing TOW Missiles on SR-7/SR-10 shall police up all TOW Missile Wire from the entire range and it must be inspected and cleared by a Range Control Range Inspectors.

13. Artillery

a. Artillery will only be fired from designated and surveyed GPs, see Table 6-2, unless a specific SRR has been approved for other areas/sites and surveyed/approved by 10th Marines and Range Control. Artillery can only fire lowest charge and highest angle of fall, aboard Camp Lejeune. Quiet Hour requirements/policies listed in Chapter 1 also pertain with a formal SRR 30 days in advance.

b. Impact areas for the G-10, K-2, and N-1/BT-3 are described in Appendix B of this Order. G-10 is the principal impact area for artillery indirect fires. Firing into the K-2 is by SRR only and only from a few selected approved GPs as listed in RFMSS. Direct fire artillery is authorized on Range G-7.

c. An Artillery FO with positive visual means to observe rounds impact is required at all times. The OP must be in a "HOT" status first before a GP can be placed into a "HOT" status.

d. All FOs/observers will call "CHECK FIRE" and report rounds unobserved or out of the impact area as required or as directed.

e. Artillery is cleared for overhead fire. Installation public roads have been approved for traffic during artillery firing; warning signs are posted that artillery rounds may be fired over the roads. During certain weather conditions with low cloud cover, which will amplify noise, Range Control may impose restrictions to reduce noise levels.

f. No personnel/vehicle traffic is authorized to be within Area E of the Artillery SDZ, as depicted in Chapter 10 of reference (a). Weapon crews firing from an approved tactical configuration and other operational personnel involved in the firing exercise with a valid need to enter this area may do so with the approval of the RCO.

g. The firing unit will place necessary road guards (with comm) and/or barriers if it falls within Area E. Traffic on main and secondary roads may be delayed for short periods of time (five minutes) when properly scheduled and coordinated with the RCO /BLACKBURN.

h. Artillery Safety. Artillery unit safety certification programs, to include specific artillery safety billets, will be in compliance with references (a) and (ar). Review references (a) and (ar) for additional information on field artillery safety requirements and firing procedures. Ensure all artillery safety checks are completed before live-fire events. Ensure all safety personnel are properly trained and proficient in duties in accordance with all applicable orders and this Order.

i. Danger Areas

(1) SDZs constructed manually will use those grid coordinates and the procedures listed in references (a) and (ar). At no time will artillery rounds land within 750 meters of the outer edge of the current G-10/K-2 Impact Areas.

(2) The Primary Danger Area (PDA) grid coordinates listed in Appendix B under the appropriate range will be used as "initialization points" in the Automated Range Safety System (ARSS) for the safety computation.

j. Ammunition and Propellants

(1) Alteration of fuses/ammunition is prohibited.

(2) Modular Artillery Charge System of 155mm propelling charges, do not require the burning of unused propellants significantly reducing the need for conducting powder burns during artillery training. Unused, deteriorated, and damaged powder increments will be burned in accordance with references (ar) and (as).

(3) Firing Improved Conventional Munitions, M982 Excalibur, Copperhead, High-Mobility Artillery Rocket System and antipersonnel-type projectiles in training is prohibited at Camp Lejeune.

(4) Prior to firing artillery illumination, check with BLACKBURN for aircraft flights/routing to minimize interference with night flights, night vision flights, and local fire conditions. The firing unit must check the wind direction by using its own assets from the artillery unit.

k. The maximum ordinate will not exceed 17,999 ft. and will remain within the restricted airspace outlined in Chapter 4 of this Order.

l. Check rounds will be fired upon initial occupation of any artillery firing position. The target for the check rounds will be located near the center of the target area.

m. Any projectile that bursts or lands outside the impact area requires immediate action by the firing artillery unit such as sounding "Check Firing, move to the rear of the piece and fall in", maintain all data on the howitzers, notify BLACKBURN and the unit's chain of command immediately and conduct an investigation in accordance with reference (ar) and this Order.

n. Artillery Direct Fire is only authorized on the G-7 Range. A detailed range description and listing of safety rules and policies for this range are in the Range Cards.

o. GP-23 is the only GP authorized for the construction of howitzer pits (Artillery Fire Base Training), use of engineer equipment and the training of artillery regimental engineers, as

approved by reference (au). Engineer training at this GP satisfies the requirements of Section - Regiment Engineers - 8102, Arty Brty - 6122, Arty Btry - 6124 of reference (at). Requests to conduct engineer operations in this GP will be submitted as a SRR.

(1) No earth moving/disturbing activities will be conducted within 20 meters of a delineated wetland or RCW site.

(2) When authorized, berms will be no higher than five ft. and only three sides of the berm will be constructed. Pits will not exceed 20 meters wide or 25 meters long. A maximum of six howitzer pits can be constructed. Dirt for the berms will be pushed from the outside of the howitzer pit when filling pits. Additional dirt may be obtained from the dredge spoil site on Weil Point Road but must be returned to Weil Point Road once the event is completed.

(3) Upon completion of training, the area must be leveled out, all holes filled in, and the GP inspected by a Range Inspector. At no time will trash/dunnage/tactical wire/other items be burned or buried.

(4) No petroleum products (fuel, oil, lubricants) will be stored (temporarily or permanently) at this GP without prior approval from Range Control and the EMD.

(5) The only tactical formation authorized when engineer operations are conducted is battery on line.

(6) Coordination for engineer support is the responsibility of the using unit.

(7) No clearing of existing forest/pine trees is authorized.

(8) No more than six engineer/artillery training evolutions per year that require digging are authorized at GP-23.

ARTILLERY GPs	GP GRIDS
GP-1	18S TD 8974 4226
GP-2	18S TD 9140 4134
GP-3	18S TD 9280 4090
GP-4 (Inactive)	18S TD 9031 3792
GP-5 (Inactive)	18S TD 9387 3721
GP-6 (Inactive)	18S TD 9630 3564
GP-7	18S TD 9632 3561
GP-8 (Inactive)	18S TD 9542 3514
GP-9	18S TD 9694 3513
GP-10	18S TD 9205 3093
GP-11 (Inactive)	18S TD 9250 3188
GP-12	18S TD 9348 3101
GP-13	18S TD 9161 2866

ARTILLERY GPs	GP GRIDS
GP-14 (Inactive)	18S TD 9003 2961
GP-15	18S TD 9057 2832
GP-16	18S TD 8870 3095
GP-17	18S TD 8936 2915
GP-18	18S TD 8955 2743
GP-19 (Inactive)	18S TD 8940 2694
GP-20	18S TD 9033 2677
GP-21	18S TD 8889 2960
GP-22	18S TD 8698 2609
GP-23	18S TD 8667 3396
GP-24 (Inactive)	18S TD 8650 3144
GP-25	18S TD 8586 3091
GP-26	18S TD 8583 2921
GP-27	18S TD 8520 2856
GP-28 (Inactive) Now ETA-7	18S TD 8472 3295
GP-29	18S TD 8526 3237
GP-30	18S TD 8453 3050
GP-31	18S TD 8252 3080
GP-32	18S TD 8199 3025
GP-33 (Inactive) Ship on Land Site	18S TD 8051 3120
GP-34 (Inactive)	18S TD 7852 3693
GP-35	18S TD 8355 3197
GP-36 (Under Construction)	18S TD 8135 3125
GP-37	18S TD 8850 2725

Table 6-2--Artillery GPs and Locations

14. Tanks, Assault Amphibian Vehicles, and Light Armored Vehicles

a. Tanks equipped with 120mm main gun can only fire training practice ammunition. AAVs equipped with the Up Gunned Weapon Station (.50 cal/MK-19) and LAVs equipped with 25mm chain gun are authorized to fire on the ranges as listed in RFMSS and the Range Card for that range. Only Training Practice (TP) ammunition will be fired on SR-7 and SR-10 in GSRA. All MK-19/M203 training ammunition dunnage down range on SR-7 and SR-10 must be policed up and removed from the range (DODIC BA12, BA21, and B519).

b. Although the unit CO is responsible for safety during all phases of firing, Vehicle Commanders are responsible for the safe firing and operations of their vehicles to ensure they do not damage gates and the environment. Weapons will be cleared, pointing down range, and checked by the ROIC/RSO before departing the range.

c. Static Firing. During daylight and good visibility, firing vehicle(s) will display colored flags. At night and during reduced visibility, firing vehicle(s) will display lights. With either flags or lights, the color displays will be:

(1) Red. Vehicle engaged in firing; weapons must be pointed at the target area.

(2) Green. All vehicle weapons are clear and elevated. Any live ammunition in the vehicle is properly stowed.

(3) Red and Green. Vehicle is performing prep to fire checks or the crew is performing a non-firing exercise. Weapons are clear, but not elevated.

(4) Red and Yellow. Vehicle has a malfunction or misfire. Weapons are not clear and are pointed down range.

(5) Green and Yellow. Vehicle has a malfunction. All weapons are clear.

d. Firing on the Move and Battle Runs. Once a vehicle begins its battle run and passes the start firing line, all weapons are considered to be loaded and ready to fire. Flags or lights are not required to be displayed, but their use will provide a greater degree of control when more than one vehicle is firing on the move. Cross-range firing of weapons is not authorized on SR-7 and SR-10.

e. Completion of Firing. When the vehicle or vehicles have completed a battle run and all vehicle weapons systems have been cleared and checked by the ROIC/RSO, they will move to the rear of the range and out of the firing area or maneuver box. Review Chapter 8 of reference (a) for additional information on tank and light armored vehicles firing. Using units will police up all range roads and around the defilade firing positions, targets (areas where the grass is cut) on SR-7 and SR-10 and remove all ammunition dunnage like brass/links/tank round canisters/MK-19/M203 ammunition dunnage from the range and the surrounding areas that are mowed/cut.

f. Exiting the Range. The Vehicle Commander or the ROIC/RSO will ensure the main gun is aligned within the envelope of the vehicle width when traveling off range on roadways or tank trails. Report all maintenance problems on tank trails/road crossing pads to BLACKBURN or a Range Inspector.

g. Off-road Maneuver. Tracked and wheeled vehicles can be authorized to maneuver off-road in LZs and other designated areas. Upon completion of this training, the unit is responsible for filling in and smoothing out all ruts that are deeper than six inches or more and returning the area to a usable condition. The unit/command may be

required to provide heavy engineer equipment to meet this requirement. A Range Inspector will inspect the entire area and clear the unit upon completion of filling/smoothing of the areas used. Additional information can be found in Chapter 5 of this Order.

15. Aerial Gunnery

a. Safety measures, ranges, and firing requirements for aerial gunnery, including rockets and missiles, can be found in Chapter 4 and Appendix B of this Order and Chapter 11 of reference (a). This type training will be requested by SRR. Range Control has a separate Aerial Gunnery template SRR and CD available for SR-7, SR-9, and SR-10 on request.

b. Pilots and gunners will be familiar with the impact area, firing limits, sectors of fire, WDZs for the weapons and ammunition being fired, BPs, and safety regulations for the range on which they will fire. Ensure safety procedures are in place for a runaway gun from an aircraft.

c. Communication will be maintained between FAC/FAC(A)/JTAC, ROIC/RSO, firing aircraft, Navy Boat Crew (when applicable) and BLACKBURN at all times.

d. Aircraft weapon systems will be loaded or unloaded only at authorized locations.

e. The master arm switch will be placed in the safe position before leaving any firing position.

f. Door Gunnery operations require a Face-to-Face brief with BLACKBURN or the Bass Range Safety Specialist (BRSS)/Range Control Operations Officer (RCOO) and will be conducted in accordance with the appropriate aviation gunnery manuals established by Marine Aviation Weapons and Tactics Squadron One, reference (a), this Order/Range Card for that range, and the appropriate TMs/FMs and all other references.

g. The Aircraft Commander will ensure his aircraft is properly oriented with the primary direction of fire on the range and approved targets before firing TP ammunition only.

h. When conducting CAS or SIMCAS, aircraft must be under the positive control of a FAC/FAC(A)/JTAC. When conducting SIMCAS within the MOUT Lejeune Complex, E-MOUT, Combat Town, or Mobile MOUT, a separate FAC/JTAC will be responsible for that event; the MOUT must be signed for at Range Control.

i. Before any live-fire, each aircraft will conduct a cold pass of the target area to familiarize them with the run and to ensure unsafe conditions do not exist.

j. FAC/FAC(A)/JTAC procedures shall adhere to reference (au).

k. Review references (a) and (au) for additional information on aerial gunnery firing.

16. Air Defense Weapons

a. Safety measures, ranges, and firing requirements for air defense weapons can be found in RFMSS and the Range Card for E-1, as well as in Chapter 12 of reference (a).

b. The E-1 Range is the only location aboard Camp Lejeune authorized to fire air defense weapons (Stingers/Avenger Weapon System). Using unit must also coordinate the scheduling of the W-122 15B (VACAPES) and the Restricted Area (Airspace) R-5306C air/sea space (Cherry Point). Procedures for runaway gun and missile misfires must be in place. Additionally, unit must have a recovery/clean-up capability for targets/drones that fail to sink within the approved SDZ. Targets shall be recovered if possible by the using unit. Units are required to sweep/check the entire beach to include the State Park up to two days after conducting a live-fire event.

c. If scheduled two months in advance of the training dates, RCD will submit a request for Range Sweep Aircraft. If scheduled inside two months, scheduling sweep aircraft is a unit responsibility.

d. All environmental policies protecting sea turtles/sea mammals on the beach during the turtle-nesting season (1 May to 31 October) must be enforced and supervised by the ROIC/RSO.

e. Unit must also be on the lookout at all times for marine mammals and go into a "Check Fire" if sighted.

17. Demolitions

a. General. The routine use of high explosive demolitions will be confined to demolition ranges (ETAs) and specially prepared pits, per reference (a). However, SRRs for the use of demolitions in other TAs/ranges can be considered. Use of demolitions to simulate supporting fires or IEDs, when authorized, is limited to the use of 1/4-pound blocks of TNT or less. Review Chapter 15 of references (a) and reference (aw), Explosives and Demolitions, for additional information on demolition training. All using units must have a plan in place to fill in and level out all holes and remove all Demolition /Explosive debris from the range such as steel/concrete/wood and properly dispose it.

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b. ROIC/RSO will ensure positive means to keep personnel at safe distances to protect hearing and prevent injury from fragmentation or inadvertent/premature detonation. All non-participating or observing personnel will either be in a missile proof bunker or outside of the SDZ of the demolition pit during firing of live explosives.

c. ROIC/RSO will ensure that all personnel wear helmets, flak jackets, as well as hearing and eye protection.

d. All demolition operations must go into "CHECK-FIRE" during Thunderstorm Condition 1 and if an unscheduled aircraft fly near or over the assigned ETA.

e. Trash/Fuel Shots are not authorized on any ETA, EOD, or live-fire ranges.

f. At no time will units mix live explosives with any inert training devices during the same training event.

g. Cratering charges will not be exploded on roads leading into or adjacent to the ETA and can only be used in the center of the ETA pit area. Units must fill in all holes made by cratering charges.

h. The use of field expedient demolitions/devices (i.e., modified /improvised Claymore Mines, Bangalore Torpedoes, and cratering charges) is not authorized unless approved by Range Control via a SRR ten working days prior to planned use.

i. The use of demolitions and explosives after sunset requires an SRR 10 working days prior to the planned training event.

j. Breaching operations requires a SRR at least 10 working days before the scheduled event and must use charges no larger than 0.25 lbs NEW. Units will be guided by reference (aw) and (ax), Demolitions Materials, OP-5, EODB/TM/TO 60A Series, other required references, and this Order. Breaching operation require a certified in writing, school trained Breacher, and must also be in accordance all requirements set forth in the Guidebook for Assault Entry Techniques Manual and other required references for this high-risk type training event.

k. Units are not authorized to use any live-fire training with petroleum products/fuel and explosives or demolitions aboard Camp Lejeune.

#### 18. Mines, Booby Traps, and Pyrotechnics

##### a. Mines and Booby Traps

(1) The use of live mines and booby traps will be confined to controlled firing demonstrations. Such demonstrations may be conducted on any ETA for the approved size of explosive (NEW) for that ETA. Units firing a M18A1 Claymore mine will strictly follow procedures in reference (ay) (previously FM 23-23) and this Order. For additional information on mine/booby traps, see reference (a), Chapter 15.

(2) All personnel will wear flak jackets, helmets, hearing and eye protection.

(3) Non-Explosive Practice (Simulated Blue Bodied) mines, Training IEDs, and booby traps can be used in all TAs and on all demolition ranges provided necessary safety precautions are taken as stated in reference (a), Chapter 15. The using unit will remove all devices after the training event and will account for each device.

(4) Utmost care will be taken to ensure no live, practice mines, or booby traps with any type of explosive device are left on any range, training facility, or in any TA. Such items will be counted before issue and retrieved on completion of training. The using unit will sweep the range after the training event, remove all ammunition dunnage and dispose of it properly.

(5) Un-retrieved simulated devices when found by other units, the CLEO, or PMO will be treated like the live device it is simulating causing the installation/base to go into a threat condition. The using unit must keep track and accountability of all devices at all times.

b. Pyrotechnics. Smoke grenades, CS grenades, and other pyrotechnics such as signaling devices are authorized for training, but must be supervised by a SNCO or officer. Use of pyrotechnics may be restricted by fire conditions; unit must check with BLACKBURN during fire season (March-June, September-December). Additional information for smoke grenades, CS grenades, and other pyrotechnic devices can be found in reference (az). Pyrotechnics, CS, and all smoke type devices are not authorized in the GSRA Complex/GSRA Ranges. CS can only be used by a 5711/5702, scheduled properly in RFMSS as a CS event, approved via E-Mail Special Range Request (ESRR) and signed for by the 5711/5702, E-6 or above.

c. Non-Pyrotechnic IED Simulators. Marine units training with non-pyrotechnic IED simulators will receive training prior to using the equipment in the properly scheduled TA. Only those Marines who have completed the required training will be authorized to draw and use approved equipment.

d. Trip Flares. All trip flares will be positioned so they ignite below waist level and center of the down range area. The using unit must clean-up, police up all debris after use and remove all debris from the range.

(1) Trip flares shall be positioned so the hazard pattern or the impacting flare does not endanger personnel.

(2) Trip flares shall not be left on any RTA. Trip flares shall be counted before being issued to ensure all items issued are retrieved on completion of the demonstration or exercise.

#### 19. Non-Lethal Weapons

a. General. The term "non-lethal" shall be understood as a function of intent. It is a goal, not a guarantee for these weapons. The RCO must approve the concept of employment of any non-lethal weapons not previously addressed in this Order.

b. The ROIC and RSO for non-lethal weapons must be an E-6 (SSgt) or above, as certified on the CO Certification Letter.

c. The use of SESAMS/CCMCK/UTM shall be employed in accordance with Chapter 14 of reference (a).

#### 20. Non-Standard Weapons and Ammunition

a. The CG, Marine Corps Combat Development Command (MCCDC) (C465) must approve the use of any non-standard ammunition, explosives or weapons before use aboard Camp Lejeune. The CG MCIEAST-MCB CAMLEJ (G-3/5) is the final authority for use of non-standard ammunition, explosives, or weapons aboard the Installation.

b. Requests to use non-standard weapons and/or ammunition will be made in RFMSS (the comments block will include a list of the non-standard items).

c. A copy of the Limited Safety Release, Safe and Ready Certification or Safety of Use Memorandum (SOUM) will be provided to RCD prior to the request being approved.

d. MARSOC may approve the use of non-standard items of explosives when necessary for Special Forces training and operations. MARSOC units must request permission via formal naval letter to the CG, MCIEAST-MCB CAMLEJ (G-3/5) to use all non-standard weapons and ammunition aboard Camp Lejeune.

e. The use of non-standard A&E or foreign ammunition on training ranges will be reported to Range Control and EOD prior to use.

21. Research, Development, Testing and Evaluation

a. All non-tenant Research, Development, Testing and Evaluation (RDT&E) activities within the Camp Lejeune RTA must contact MCIEAST-MCB CAMLEJ (G-3/5 RCD), 60 days prior for coordination and approval.

b. Certifications. Personnel desiring to conduct RDT&E events on Camp Lejeune RTAs will comply with the provisions of Chapter 1 of this Order regarding ROIC/RSO certifications and applicable briefs. RDT&E Event Coordinators will ensure that RTAs are properly scheduled and accessed in accordance this Order. Events not properly qualified through Camp Lejeune Range Safety and properly coordinated will be ordered to exit the RTA until proper coordination has taken place.

22. Counter Improvised Explosive Device Home Station Lane Training Complex (SR-12)

a. Within the ST TA, GSRA Complex is the Counter-Improvised Explosive Device (CIED) Home Station Lane Training Complex, Joint Improvised Explosive Device Defeat Organization (JIEDDO Course) for mounted and dismounted CIED training which will be coordinated and scheduled through the MCES.

b. A separate Range Order/Range Card for this complex is published by the MCES and Range Control.

c. The Ground Based Electronic Warfare Systems for IED/JIEDDO training can be used during training. Counter Radio Control Electronic Warfare (CREW) systems are ground based radio jammers. The ROIC/RSO for the unit utilizing these systems must ensure the frequency load sets that are being jammed by the CREW systems have been cleared via the MCIEAST-MCB CAMLEJ Spectrum Officer and Range Control before conducting any training with these systems. These systems/devices can be checked out at the Tactical Engagement Simulation System (TESS) warehouse and used in TAs after proper coordination has been accomplished prior to training.

d. Live ammunition, SESAMS/CCMCK/UTM, pyrotechnic, explosives, and demolitions are not authorized on this range complex (HSLT SR-12) within the GSRA. Blank ammunition, practice hand grenade with fuse, and smoke grenades are authorized if properly scheduled and coordinated. Smoke grenades are only authorized in areas that will not start a fire. Smoke grenades are not authorized in any of the buildings/structures of this complex.

## Chapter 7

### Laser Operations

#### 1. General

a. Military lasers are being integrated into many aspects of military training and operations aboard Camp Lejeune. Although lasers are prohibited from being used directly as a weapon, they enhance the target designating and range finding capability of many of the weapon systems in the current DoD/DON/USMC arsenal, including ground, water, and airborne systems. Personnel using or supervising the use of lasers will be thoroughly familiar with all aspects of laser operation, laser safety, system being employed, and all associated dangers during training and operation aboard this Base. A detail list of applicable references and definitions for lasers can be found in references (n) and (o).

b. The word laser is an acronym derived from a description of the physical process, LASER. The laser generates a beam of intense, monochromatic light that is usually invisible under normal operating conditions. The basic hazard associated with laser light is eye damage. This damage can vary from a small burn, undetectable by the injured person, to severe vision impairment. Eye damage by laser light occurs three ways:

- (1) Intrabeam or direct viewing;
- (2) Diffuse reflection; or
- (3) Specular reflection.

c. Direct viewing is the most hazardous form of damage, as the light beam is focused directly on the retina. Diffuse reflections occur when the laser beam intercepts a rough surface and is reflected in a scattered pattern. Specular (mirror-like) reflections redirect the light beam and cause the same eye damage as direct viewing. The use of appropriate eyewear (goggles or visors) with the correct Optical Density (OD) for the frequency of the laser will eliminate the ocular hazards associated with lasers.

(1) Laser safety is a unit/command responsibility. Commanders are responsible for ensuring their subordinates understand all of the potential hazards of training with all laser systems/classes of lasers currently approved and have the required Range Laser Safety Officers (RLSO) and conducted the required laser safety training. No one may act as RLSO until certified in writing by the Battalion/Squadron Commander or separate Company Commander as qualified to perform duties and trained as RLSO or above for the laser to be fired/used aboard Camp Lejeune.

(2) RLSOs must take the Range Laser Safety Course, Marine Net Distance Learning Course (RLSC-DL) Course Number RTAMRLSOAA or attend the Administrative Laser Safety Officer (ALSO) Course at Camp Lejeune or MCAS Cherry Point/New River to be properly trained. Contact Range Control at (910) 451-1240 for class schedule.

d. All lasers are currently divided into four classes: (1, 1M, 2, 2M, 3R, 3B, and 4). All military lasers must be labeled with their appropriate warning and classifications.

e. Laser Classification. Laser systems are classified according to their relative hazards from Class 1 (least hazardous) to Class 4 (most hazardous).

(1) Class 1 laser systems pose no hazard under any normal viewing conditions. Class 1M laser systems are only hazardous when viewed by magnifying optics.

(2) Class 2 laser systems are low power visible wavelength lasers which are not considered hazardous for momentary (0.25 s) unintentional exposure because the normal observer will blink or look away before eye damage can occur. Class 2M laser systems are low-power visible wavelength lasers similar to Class 2, but are hazardous when viewed with magnifying optics even for a momentary exposure.

(3) Class 3 laser systems are medium power lasers. They are hazardous to personnel who are in the beam path and viewing the source directly or by specular reflection. They usually do not present a diffuse reflection or skin hazard. Class 3R laser systems are considered safe if handled carefully, with restricted intrabeam viewing. With a Class 3R laser, the MPE can be exceeded, but with a low risk of injury. Class 3B laser systems are powerful and can cause serious eye injury for exposures of very short duration. They can be hazardous for long distances downrange from the laser system.

(4) Class 4 laser systems are very powerful and the most dangerous laser systems. They can be hazardous for extremely long distances downrange from the laser system. They can also present a potential diffuse reflection viewing, skin, and fire hazard.

f. All lasers have potential hazards. General lasers safety rules of employment, engineering, administrative, and procedural control measures are as follows:

(1) All laser systems must be approved by the Laser Safety Review Board (LSRB), with a copy of the approval on file at Range Control, prior to use. This is particularly important when employing emerging technologies or commercially available lasers. Do not assume

that just because you have it, the Laser Safety Review Board has reviewed it/evaluated it. Units can contact Range Control at (910) 451-1240 if they have any questions.

(2) All laser systems will be treated like any direct fire line-of-sight weapon, such as a rifle or machinegun. The same safety hazard control precautions will be taken in order to provide a safe operating environment. Typical buffer angles for lasers are two mrad for fixed, five mrad for inertial stabilized, 10 mrad for supported, and 15 mrad for unsupported laser systems.

(3) Only remove the lens cap when ready to fire the laser down range at the approved location/position. Remove the lens cap before applying any power source.

(4) Do not leave the power source connected to the laser device while not lasing. Laser systems that do not have lens caps or disconnects from power source, the operator must ensure the down range area of the laser is clear, the system is safe, and the operator is not touching the trigger to the laser system.

(5) Ensure all personnel using/supervising the operation of the laser/laser system are completely familiar and trained with its operation and the associated laser hazards and all safety procedures.

(6) All Marines/Sailors who operate or supervise the operation of laser equipment will be laser safety certified as RLSO or ALSO per references (n), (o), Chapter 16 of reference (a), and Chapter 7 of this Order.

g. Class 1, 1M, 2, and 2M lasers are authorized in all TAs, ranges, and training facilities aboard Camp Lejeune if properly scheduled in RFMSS. The using unit must be completely familiar with the operation and the safety requirements for the laser device and the Non-Ocular Hazard Distance (NOHD).

h. Class 3R, Class 3B, and Class 4 lasers are restricted to OPs 2, 3, and 5 and Ranges G-21, K-325, K-402, K-501/K-501A, K-503/K-503A, K-500/K-500A, L-5, MAC-6, SR-6, SR-7, SR-8, SR-9, SR-10 and others as listed in the current copy of Camp Lejeune Laser Survey that is posted on the Range Control and RTAM TECOM Web Pages. All RLSOs for Class 3R, Class 3B, and Class 4 lasers must be designated an RLSO or ALSO and be familiar with the MCIEAST-MCB CAMLEJ Laser Range Safety binder and this Chapter and all listed references on lasers. All ranges assigned to WTBn, Stone Bay Range complex (SBRS) are authorized up to Class 3B Laser Devices.

2. Unit Laser Safety Program

a. General. Prior to conducting any laser operations, units must establish a local laser safety program. This program shall be established as directed by reference (o) and the other references that are listed in reference (o). A certified Administrative Laser Safety Officer (ALSO)/Technical Laser Safety Officer (TLSO) that is appointed in writing by the units commander will manage this program. At a minimum, the program will include:

- (1) A local laser safety organization
- (2) Local laser safety regulations (Unit laser SOP)
- (3) Activity audit of the lasers
- (4) Laser safety-training program
- (5) Laser protective eye wear/equipment program
- (6) Medical surveillance program if required
- (7) Accident investigation/reporting procedures
- (8) Record keeping/documentation file (Records and rosters of annual laser safety training)
- (9) Reporting of annual inventories

b. In addition to the above, the CO/OIC of the lasing unit will:

(1) Select, train, and certify safety personnel as necessary to assist in complying with the provisions of the Chapter 16 of reference (a), references (n) and (o), this Order and all other applicable laser regulations. All RLSOs at Camp Lejeune must be trained as a RLSO using the Marine Net Course (Course Title, RTAMLRSOAA) or trained as an ALSOs at a minimum.

(2) Provide adequate control of the target area to prohibit entry of unauthorized personnel, vehicles, or aircraft.

(3) Designate a RLSO for each lasing site (the RLSO can be the ROIC/RSO of unit conducting training provided he is present at the lasing site and is laser safety qualified/certified). The RLSO must have experience appropriate to the exercise or operation and shall be present during all laser operations.

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(4) Pilots of aircraft both fixed-wing and rotor-wing that are conducting laser operations from that aircraft into the G-10 Impact Area must be qualified and trained on that laser device to ensure that it is operated safely at all times.

c. Units that have an inventory of Class 3B, 3R, or 4 laser systems will establish a local laser safety program. This program shall be established as directed by reference (o). A certified ALSO will manage this program.

3. Range Laser Safety Officer. RLSO duties shall not be delegated. The RLSO will:

a. Conduct a Face-to-Face Range Laser Safety Officer Brief with the RSS.

b. Be knowledgeable of and ensure compliance with this Order, references (a), (n), (o), (ba), (bb), (bc), and (bd), and applicable FM/TM's and other applicable laser references.

c. Brief personnel working with laser devices and any laser range support personnel on laser related hazards and safety devices, procedures, and measures.

d. Know the azimuths, elevations, and lateral limits of each laser range, each firing position, and targets to be used.

e. Ensure protective eyewear is used when required. Be sure that unprotected personnel are not exposed to either direct beam or a beam reflected from a specular (reflective) surface.

f. Maintain continuous communication with BLACKBURN and any personnel in the target area. Notify BLACKBURN when lasing operations commence; stop lasing immediately if communications are lost.

g. Stop lasing immediately if positive control of the laser beam is lost. Approve each specific laser firing.

h. Ensure no specular surfaces are within 30 meters of the target area and only diffuse reflectors are along the laser line of sight.

i. Ensure controls are in place (range guards/barriers with laser warning signs) to prohibit unauthorized personnel entry into the laser SDZ (LSDZ). Laser warning signs are available from Range Control. Ensure signs are emplaced at safe distances and locations to prevent unsafe practices and laser accidents.

j. Record all laser firings (i.e., time, location of laser, and target, azimuth to target, type laser) for unit records in accordance with references (n), (o), and (be). Unit laser firing logs will be maintained for five years by the using unit.

k. Comply with all applicable duties of the ROIC/RSO as listed in Chapters 1 and 3 of this Order.

l. Post at least one person as an air sentry with the sole purpose of watching for unauthorized aircraft entering the Laser Target Area (LTA) or the Laser SDZ (LSDZ).

m. Maintain continuous control of all laser use on the range.

#### 4. Range Control Laser Procedures

a. All laser operations must be scheduled (RFMSS) through Range Control.

b. All lasers will be treated as direct fire weapons. The underlying concept of laser safety is to prevent intrabeam viewing by unprotected personnel. This is done by locating target areas where no line of sight exists between the lasers and uncontrolled potentially occupied areas and by removing specular surfaces from targets. The controls to prevent exposure to hazardous levels of laser radiation are:

- (1) Beam stops;
- (2) Controlled access;
- (3) Restricted airspace;
- (4) A buffer zone around the target area;
- (5) Safety Brief/Pre-Mission Briefs; and
- (6) Laser Training.

c. To provide these controls to prevent exposure, the following apply to all laser operations:

(1) The laser range boundary must be marked with signs (e.g. DANGER, Laser Range in Use, DO NOT ENTER) and access roads blocked by signs/barricades or radio-equipped personnel to ensure that unprotected personnel do not enter the range area.

(2) Prior to lasing, the target and range area must be visually inspected to ensure no unauthorized personnel, aircraft, or water vessels are in the hazard area.

(3) Lasers will not be activated until the operator has positively identified the target to be lased.

(4) Never designate aircraft, moving vehicles, or personnel. Never designate specular reflectors such as plexiglass, water, mirrors, vehicle windshields, unpainted metal, etc.

(5) Only the specific designated run-in headings/flight profiles/laser range parameters will be utilized.

(6) Laser operations shall cease in fog, rain, or other inclement weather conditions.

(7) The beam must be terminated on government owned or controlled property and within the LSDZ. Lasers will not be directed at any aircraft or above the horizon at any time.

(8) Personnel movements in areas adjacent to the range area shall be known by lasing safety personnel. ROIC/RSO/Unit leadership of the movement or occupied position adjacent to or across from the lasing range shall be advised of the hazards.

d. The following rules apply for all laser use in the RTAs:

(1) The ROIC/RSO/RLSO must be aware of all personnel movements in areas adjacent to the range area. The ROIC of any moving personnel or occupied position adjacent to or across from the lasing range must be advised of the hazard. BLACKBURN will pass coordinating safety advisements as needed to all units.

(2) Announcement of laser firing, audible to all training personnel, must be made prior to firing (e.g., "Lasing, Lasing, Lasing" shouted out-loud).

(3) RCD shall:

(a) Maintain laser firing logs for the Installation indefinitely via RFMSS.

(b) Conduct a quarterly sweep of laser ranges to remove specular surfaces that may cause reflection.

e. Report all mishaps or unusual occurrences to the Command LSSO immediately.

f. Force-on-force scenarios will be approved by Range Control. Instrumented Tactical Engagement Simulation System [I-TESS] is a Class 1 system.

g. Force-on-Force Laser Operations. Due to the inherent risk of laser use during force-on-force operations, a deliberate Operational Risk Analysis will be used in all phases of the training or exercise. Specifically, the ROIC/RSO will:

(1) Train safety/controller personnel before conducting force-on-force exercises with lasers.

(2) Provide the RSS with a detailed plan of the exercise including:

(a) A detailed list of all laser use during the exercise will be provided prior to approval in the RFMSS request;

(b) A list of weapons, ammunition, pyrotechnics, smoke, and chemicals to be used;

(c) Unit control and communications measures;

(d) Terrain and facilities to be used; and

(e) Number of personnel in the training exercise versus number of safety controllers and other personnel in support of the exercise.

(3) When laser-equipped vehicles travel on range roads or public highways or are not engaged in tactical/operations, the laser exit port must be covered. This includes all ground mounted/handheld systems. The RLSO or above must ensure lens caps are in place. Any tactical vehicle equipped with a laser system must turn laser systems off when personnel are working or operating in front of the wheeled/tracked vehicle.

h. I-TESS-II is a Class 3A laser; treat this system with caution and ensure all laser safety procedures are in place.

i. All lasers used aboard this Installation must be in compliance with the Laser Range Safety Certification, latest Camp Lejeune Laser Survey and this Order/Range Card for that range at all times which are posted on the Range Control Web Page. A copy of these documents will be handed out to each RLSO when a laser range is signed for at Range Control. These documents provide the user with specific information such as authorized lasers, lasing points, laser principal direction of fire (PDF) and right and left lateral limits of fire for day specific and night specific target areas.

5. Laser Incidents/Accidents

a. Personnel suspected of experiencing potentially damaging eye exposure from laser radiation will be evacuated immediately to the nearest medical facility and undergo an eye examination. Pertinent medical guidance for such emergencies is available per references (n), (o), and (bb). The expeditious examination and treatment of laser eye injuries is critical in minimizing loss of visual acuity.

b. Report laser overexposure incidents immediately to the Range Control/BLACKBURN/unit chain of command. Subsequent reporting will be in accordance with references (n), (o), and (bb).

c. Chapter 16 of reference (a) provides additional guidance and policy. Expeditious medical guidance is available through the Tri-Service Laser Injury Hotline at (800) 473-3549 or (937) 938-3764.

d. Medical Surveillance. Conduct First Aid for eye injury from laser energy. First Aid shall not be attempted for damage produced by laser energy to the eye; therefore, prompt reporting to a medical treatment facility is imperative known. Suspected eye injuries constitute an **"Urgent"** MEDEVAC. MEDEVAC procedures can be found in Chapter 1 of this Order. Immediate examination will be given when there is known or suspected laser overexposure.

6. Supplemental Laser Information

a. Definition of Terms

(1) Diffuse Reflection. The scattering of laser light as it reflects off of a rough surface.

(2) Divergence. The increase in the diameter of the laser beam as the distance from the aperture of the laser increases.

(3) Maximum Permissible Exposure (MPE). The level of radiation a person may be exposed to without hazardous effect.

(4) Nominal Ocular Hazard Distance (NOHD). NOHD is the distance from the laser to the human eye, where laser exposure does not pose a hazard.

(5) OD. Refers to the density of the eyewear (goggles or visors) required to protect the eye from laser radiation.

(6) Specular Hazard. A shiny or mirror-like surface. Examples are vehicle windows, polished metals, standing water, plexiglass, and chrome bumpers.

b. Class 1, Class 1M, Class 2, Class 2M, and Class 3A lasers are authorized for use in all RTAs with required restrictions based on the laser class and the Laser Safety Review Board (LSRB) documents for that laser device/system.

(1) Use of all safety features that limit power output are mandatory on ranges not certified for Class 3B, 3R, and higher lasers.

(2) ROIC/RSO and the LRSO will ensure use of applicable safety features per laser TMs.

(3) Use of Class 3A and below lasers for force-on-force operations must be coordinated with the RSS.

NOTE: DoD Exempt Lasers are lasers designed for actual combat, combat training operations, or classified in the interest of national security and are exempted from the requirements specified in reference (bf).

## 7. Using Unit

a. Unit Commanders. The CO or designated representative of the lasing unit will:

(1) Select, train, and certify safety personnel necessary to assist in complying with the provisions of Chapter 16 of reference (a) and other applicable laser regulations.

(2) Provide adequate control of the target area to prohibit entry of unauthorized personnel.

(3) Designate an RLSO for each lasing site; the RLSO can be the ROIC/RSO of the firing unit provided he is at the lasing site and is laser qualified/certified.

## 8. Laser Ranges

### a. Limitations

(1) Camp Lejeune will support lasing operations from fixed and rotar-wing aircraft in accordance with current laser range certification and this Order.

(2) The laser certification for this Installation addresses only those class laser systems approved for training scenarios by the LRSB. Any laser system used in nontraditional modes, R&D applications, and prototype systems will be handled separately and coordinated with the RSS and RCO. The Command LSSO will complete the specific certification on a case-by-case basis.

b. Ranges

(1) Laser certifications may change should the character of the laser certified ranges change. Units planning to use lasing devices will confer with the RSS as to the Installation's current laser certifications.

(2) Camp Lejeune has multiple LTAs certified for unfiltered Class 3B/3R and Class 4 laser systems. These LTAs certifications are located on Camp Lejeune Range Control website.

(3) These ranges are only approved for use with lasers specifically identified in the current Safety Of Use Memorandums (SOUMs) or the current Camp Lejeune laser certification/survey.

(4) For detailed information about laser use aboard Camp Lejeune contact the RSS at (910) 451-1240.

(5) Ensure personnel are trained and have fired the laser and weapon assigned to them.

(6) Brief participants on the capabilities of the lasers and weapons used by other units/components in the exercise.

(7) Ensure all personnel participating in the exercise have all PPE gear required by all orders and regulations governing the use of lasers.

Chapter 8

Maritime Operations

1. General

a. The CG MCIEAST-MCB CAMLEJ, exercises authority to control access to certain navigable waters to prevent injuries from live-fire operations and other training activities as described in reference (bg) and (bh). These waters include:

(1) Atlantic Coast Sector (ACS). Danger Area boundaries are described as below:

(a) On the north, follow a line bearing 105 degrees (true meridian) from grid coordinate 0050-3328.

(b) On the east and south, follow the arc having a radius of 25,000 yards centered at 9187-2765.

(c) On the west, follow a line bearing 205 degrees from 8809-2475.

(d) On the northwest, follow the shore.

(e) Sector warning buoys are located as follows:

1. Lighted Buoy A (LLNR-631.00) in position 34-36-19 N and 77-05-34 W.

2. Lighted Buoy B (LLNR-631.01) in position 34-35-22 N and 77-01-28 W.

3. Lighted Buoy C (LLNR-631.02) in position 34-30-01 N and 70-02-04 W.

4. Lighted Buoy D (LLNR-631.03) in position 34-25-28 N and 77-05-35 W.

5. Lighted Buoy E (LLNR-631.04) in position 34-22-34 N and 77-11-00 W.

6. Lighted Buoy F (LLNR-631.05) in position 34-21-55 N and 77-17-28 W.

7. Lighted Buoy G (LLNR-631.06) in position 34-23-36 N and 77-23-35 W.

8. Lighted Buoy H (LLNR-631.07) in position 34-27-57 N and 77-21-08 W.

(2) New River Danger Area. This area is comprised of eight sectors outlined on the National Oceanic and Atmospheric Administration (NOAA), United States, East Coast, North Carolina, New River, chart number 11542 - Approaches to New River. All water sectors must be scheduled in RFMSS.

- (a) Traps Bay Secto
- (b) Courthouse Bay Sector
- (c) Stone Bay Sector
- (d) Stone Creek Sector
- (e) Grey Point Sector
- (f) Farnell Bay Sector
- (g) Morgan Bay Sector
- (h) Jacksonville Sector
- (i) French Creek Sector
- (j) New River Sector
- (k) New River Inlet Sector

(3) AIWW. This area includes all navigable waters from Bear Creek through Onslow Beach Bridge to the New River Inlet to include all creeks, streams, bays, and the water contained therein.

b. Regulations

(1) Vessels may proceed along established waterways except during live-fire training periods. Warning of military training periods will be given through Notices to Mariners and by displaying, one hour before firing, a red danger streamer during daylight hours or a red light at night on the range towers/poles specified in the Range Cards for each range. When these signals/lights are displayed, vessels shall clear the sector immediately.

(2) The ACS and AIWW areas will be searched/swept by aircraft prior to bombing and firing operations. Watercraft in the area will be warned of the impending live-fire by safety/guard boats from RCD. When warned, vessels must/will leave the area as quickly as possible by the most direct route.

(3) Prior to any firing over New River sectors, the area will be visually inspected to ensure it is clear of personnel or vessels. The artillery unit conducting live-fire into the K-2 Impact Area will place observers at LZ Oriole/GP-33 or other approved locations with the required equipment to observe up and down the New River and call "CEASE FIRE" in case of a vessel or aircraft comes within/enters the GTL of the live-fire event.

(4) When firing into the N-1/BT-3 Impact Area, Brown's Island the training unit will provide tower guards that are properly equipped and will be in place and in communications with the ROIC/RSO and Navy Boat Crew radio operators before the aircraft range sweep.

(5) All navigable waters between Browns Island and the AIWW (bounded by Browns Inlet and Bear Inlet) are open to navigation only: no anchoring, fishing, cast netting, wading, or swimming. No bottom disturbing activity is authorized like; clamming, oystering, or crabbing are examples of activities not allowed. There are highly sensitive unexploded projectiles within the limits of these areas. NOTMARS will close this area when military live-fire training is scheduled. Avoid areas where signs identifying the danger/hazardous areas are posted.

(6) The waters of the AIWW and connecting waters from Bogue Sound-New River Light 58 [(LLNR 39210) at approximate position 34 Degrees 37 Minutes 57 Seconds North, 77 Degrees 12 Minutes 18 Seconds West, Bear Creek Grid Coordinates 9785-3445)] and continuing in the AIWW Southwest to Bogue Sound-New River Day beacon 70 [(LLNR 39290) at approximate position 34 Degrees 33 Minutes 7 Seconds North, 77 Degrees 20 Minutes 30 Seconds West (Cedar Point Grid Coordinates 8540-2500)], comprise a Safety Zone approximately 10 nm long. Weapons firing on authorized ranges, G-5/G-6/G-7/H-1, will be allowed on even hours (e.g., 0800-1000-1200 and so on). Vessels may transit the range area on the odd hours (e.g., 0900-1100-1300 and so on) and will proceed without stopping, except in an emergency. When Naval Vessels are firing from Fire Support Area at sea into G-10, the AIWW will close for four hours (0800-1200 and 1300-1700) at a time with a one hour break in between. The Navy Boat Crew will be on station during live firing to control vessel traffic and pass information as required.

(7) Brown's Island and the surrounding waterways were historically used as impact areas for high explosive ordnance for many years. The dangers of UXO are prevalent throughout the island and surrounding waterways to include the AIWW. Brown's Island is closed to any and all recreational use. All civilian watercraft shall not beach or drop anchors on or near restricted areas that are posted with proper warning/danger signs stating "Danger Impact Area, Do Not Enter". Foot traffic is prohibited on any of the land/marsh areas of Brown's Island at all times.

(8) Each willful violation of the regulations prohibiting entry into the impact/target area(s) during military use (live firing) and Brown's Island at any time is punishable in U.S. District Court by confinement or a fine.

c. Military Operations on the Waters of and Surrounding MCIEAST-MCB CAMLEJ

(1) All operations involving military watercraft in the Camp Lejeune area, to include, but not limited to U.S. Navy, USCG ships/smaller water vessels, USMC small boats, and military open water swimmers fall under the jurisdiction of this Order at all times. Units conducting any open water training events, to include water parachute operations will have it scheduled properly in RFMSS, signed for if required and have the required safety supervisors, safety swimmers, medical support, and safety boats to support the high-risk training event. The using unit must have the required communication with BLACKBURN during the properly scheduled in RFMSS and signed for training event.

(2) Military operations involving AAVs, LAVs, small boats, open water swimmers, LCUs, LCACs, etc., in waters surrounding MCIEAST-MCB CAMLEJ, to include water parachute operations must be scheduled through RFMSS a minimum of 14 working days prior to use. This time frame is required to permit the coordination mandated by federal law with appropriate agencies external to the Marine Corps if required and to permit the publication of the appropriate Notice to Mariners. Any unauthorized military waterborne operations conducted without a published NOTMARS, which injures civilians or damages civilian property could result in the training unit commander being held personally liable in Federal court.

(3) LCAC Route to/from Mile Hammock Bay. Entry point approaching from the sea - 855-243; Exit point towards Mile Hammock Bay - 864-255. LCACs requesting to cross Onslow Beach must coordinate operations at least 21 working days in advance with the RCO and EMD.

(4) Refueling on or within 100 ft. of water requires a SRR and a FEREIR. POC for FEREIRs is the NEPA Section, ECB, EMD at (910) 451-5063.

(5) Requests to place floating bridges, wires, cables, fuel hoses, pipes, floating targets, etc. across or in navigable waters must be submitted 30 working days in advance of the scheduled event to the CG MCIEAST-MCB CAMLEJ via the AC/S, G-3/5 (RCD). Requests must contain grid coordinates of obstruction, type of obstruction, and dates and times of emplacement and removal. Obstructions must be manned on both sides, easily removed to allow waterborne traffic to proceed, and completely removed upon completion of training.

(6) All naval and coast guard vessels involved in operations in Onslow Bay and adjacent waters falling under the jurisdiction of the CG MCIEAST-MCB CAMLEJ must request area clearance prior to entry. Area clearance is required because five of Camp Lejeune ranges fire into or from the Atlantic Coast Sector. Naval message PLA addressees are: CG MCIEAST-MCB CAMLEJ and CG MCIEAST-MCB CAMLEJ G3-5.

(7) Units conducting training in State of North Carolina waters must be vigilant and yield to hunters, commercial fishermen, and recreation boaters in the area to prevent conflicts.

## 2. Navy Boat Crew

a. General. The Navy Boat Crew is organized, staffed, and equipped to support training involving the navigable waters within the jurisdiction of the CG MCIEAST-MCB CAMLEJ. Boats are equipped with marine band radios and the capability to communicate with BLACKBURN, ROICs/RSOs of the firing unit on 34.70 FM and all other water crafts if equipped. Coxswains will operate their boats in accordance with this Order, USCG, and all other applicable regulations. Routine support includes:

(1) Downrange safety/guard boats on the NE (Bear Tower) and SW (Onslow North Tower) points of the AIWW to ensure boat traffic safety during live firing into the N-1/BT-3 Impact Area, Range H-1, Brown's Island, and Naval Gunfire. As a small craft, they will always adhere to applicable storm/sea warnings and the senior Navy Boat Coxswain on station will make the final decision to secure Navy Boat Crew operations or to seek temporary safe harbor in the event of foul weather and high sea state. If Boat Crew must secure, BLACKBURN will place the range supported in a "COLD" status until the weather condition or sea warning is lifted.

(2) Safety/guard boat may provide back-up support for parachute operations into or near navigable waters of Camp Lejeune. The Boat Crew provides this service on an "as available" basis and is not equipped for recovery operations (Safety Swimmers with proper gear) that require special equipment; such equipment and personnel must be provided by the unit requesting the support.

(3) Escort or guide boat service for amphibious vehicles (AAVs or LAVs) transiting navigable waters, primarily New River.

(4) All other assignments or tasks as directed by the RCO.

b. Areas of Responsibility. The Navy Boat Crew operates within the jurisdictional control of the CG MCIEAST-MCB CAMLEJ as defined in references (bg) and (bh). This is generally defined as the New River

Inlet; the Atlantic Ocean sector from the New River Inlet to Bear Inlet and seaward 25,000 yards; the AIWW within Camp Lejeune East-West boundaries, and the New River.

c. Requesting Procedures

(1) For scheduled firing into the N-1/BT-3 Impact Area, E-1, H-1, G-5, G-7, Naval Gunfire, and Brown's Island, RCO will routinely provide Navy Guard Boat support; separate unit requests are not required but detailed coordination must be conducted between all agencies.

(2) For all other boat support, unit requests must be submitted via the chain of command to the CG MCIEAST-MCB CAMLEJ (G-3/5 RCD) 15 working days in advance of the Monday of the training week.

d. Emergency support may be requested directly from BLACKBURN on 34.70 FM or at (910) 451-3064/4449. The Navy Boat Crew is not manned for emergency 24 hour response, so its off-duty response times will vary. The Fire Department is the primary source of water rescue assistance on-base; at sea, the Coast Guard Station at Fort Macon (252) 247-4570, Emerald Isle (252) 354-2719, Wilmington (910) 256-2615, (910) 256-4224, (910) 509-0779, or Channels 16, 83A, or 22. USMC Search and Rescue (PEDRO) helicopter can be reached at (252) 466-5745 (DSN: 582-5745), 323.7 UHF, or Channel 83A to provide emergency assistance. BLACKBURN will coordinate the appropriate emergency response.

e. All units that operate military small boats or amphibious craft must ensure they comply with all standard procedures and common courtesy such as no wake zones, water craft speed, trash, with particular attention to the entire New River, AIWW, Sneads Ferry Bridge, Onslow Beach Bridge, and Mile Hammock Bay to prevent damaging civilian watercraft and property. At no time will any trash, ammunition dunnage such as brass, links, or live ammunition be disposed of by dumping in the water.

f. VHF Channel 16 is not authorized for general communication on the water while conducting the range sweep. VHF Channel 16 is for Hailing and Distress communication only for short and direct communications and then shift to other assigned frequencies.

3. H Range, E-1 RANGE, N-1/BT-3, and Naval Gunfire Range Sweeps  
When the H Range, E-1 Range, N-1/BT-3 Impact Area, or naval gunfire are scheduled in RFMSS, BLACKBURN will coordinate a range sweep in accordance with the following procedures:

a. When the sweep aircraft checks in with BLACKBURN on 233.8 UHF (primary), 119.5 (alternate), or 34.70 VHF, BLACKBURN will contact the Navy Guard Boats and the shooting unit, providing the sweep aircraft's call sign.

b. Navy Guard Boat 1 will be located in the vicinity of grid 932295 in the AIWW abeam Onslow North Tower. It will have a Blue flashing light and flying the Bravo Flag (red flag).

c. Navy Guard Boat 2 will be located in the vicinity of Bear Tower Grid 976-341 in the AIWW. It will have a blue flashing light and flying the Bravo flag.

d. Navy Speedboat (Speedy) will be located in the AIWW during the sweep.

e. BLACKBURN will read the following safety brief to the sweep aircraft: "Sweep the N-1/BT-3 impact area from the AIWW to four miles seaward. Sweep the marshes, creeks, and AIWW between North Onslow Beach Tower (Grid 931-288), Bear Tower (grid 974-342), and Bear Inlet (Grid 003-331). Sweep the beach between North Onslow Beach Tower and Bear Inlet as well as four miles seaward. Report any sea mammal sightings to BLACKBURN. Report personnel and surface craft contacts to Navy Guard Boat with minimum four digit grid. Do you have any questions at this time?"

f. BLACKBURN will ask the sweep aircraft to contact the Navy Guard Boat on CH 16 (Marine VHF common) expecting a further switch to CH 72 to discuss contacts. If unable to establish and/or maintain communication with Navy Boats on CH-16 (156.800) or CH-72 (156.625) the sweep aircraft will contact BLACKBURN. Military aircraft without Marine VHF radio capability may establish communications with Navy Boats on 34.70 FM. If any aircraft is unable to establish communications with Navy Boats, BLACKBURN will relay all findings to Navy Boats.

g. When the sweep is complete, the aircraft will be held on station until BLACKBURN can verify with the ROIC/RSO and the Navy Guard Boat the area is clear and they are satisfied with the sweep. If the ROIC/RSO and the Navy Guard Boat are satisfied with the sweep, BLACKBURN will state to the aircraft: "I understand you had positive communication with the Navy Guard Boats. Confirm you have identified all sea mammal sightings to BLACKBURN and all personnel and surface craft contacts to Navy Guard Boats."

h. Chapter 2 discusses the rules for avoiding marine/sea mammals in and around the water impact area/assigned live fire ranges.

i. BLACKBURN will ask the sweep aircraft for requested route and clear if possible.

j. A map representation of the range sweep is available on the Range Control Website or Range Control.

4. Amphibious Vehicle Splash Points. 41 numbered splash points (SP) have been established for amphibious vehicles to enter or leave the water (the gaps in the numeric sequence are due to the deletion of inactive SP). Use only existing SP. Do not widen existing SP. Do not make new SP. If an authorized SP point is eroded or needs repairs report it to Range Control at (910) 451-1240.

SP	Grid	Description
1	18S TD 9757 3410	SP Bear Tower
2	18S TD 9594 3227	SP Old Brown's Tower
3	18S TD 9386 3052	SP Freeman Beacon
4	18S TD 9207 2855	SP TLZ Falcon E (Note 1, 5)
5	18S TD 9191 2841	SP TLZ Falcon (Note 1, 5)
6	18S TD 9163 2811	SP TLZ Falcon W (Note 1, 5)
7	18S TD 9102 2755	SP Onslow AIWW (Note 5)
9	18S TD 9010 2693	SP TLZ Albatross N (Note 5)
10	18S TD 9020 2677	SP TLZ Albatross S
11	18S TD 8779 2540	SP TLZ Bluebird S (Note 2)
12	18S TD 8761 2545	SP TLZ Bluebird N (Note 2)
13	18S TD 8673 2604	SP Mile Hammock Bay
15	18S TD 8581 3379	SP Duck Creek N
16	18S TD 8592 3373	SP Duck Creek S
18	18S TD 8564 2768	SP Traps Bay S
19	18S TD 8555 2784	SP Traps Bay N (Note 5)
20	18S TD 8552 3526	SP Weil Point
22	18S TD 8427 3378	SP Tank Trail 1
23	18S TD 8490 3451	SP Tank Trail 2 (Note 5)
24	18S TD 8453 3754	SP 6th Marines
25	18S TD 8387 3870	SP 8th Marines (Note 5)
26	18S TD 8366 3298	SP Tank Trail 3 (Note 5)
27	18S TD 8286 3013	SP Courthouse Bay N
28	18S TD 8223 3951	SP Hadnot Point
29	18S TD 8287 3188	SP Tank Trail 4
30	18S TD 8267 3551	SP Rhodes Point
31	18S TD 8244 2996	SP Courthouse Bay
32	18S TD 8222 3122	SP TLZ Sandpiper
34	18S TD 8217 2972	SP Courthouse Bay S
35	18S TD 8176 2928	SP TLZ Kite (Note 5)
36	18S TD 8184 3834	SP Town Point

SP	Grid	Description
38	18S TD 8120 3853	SP Town Point W (Note 5)
40	18S TD 8079 3146	SP Gillette Point (Note 5)
41	18S TD 8040 3132	SP Oriole (Note 5)
42	18S TD 8039 3886	SP Magnolia Lane
43	18S TD 7921 4080	SP Ragged Point S (Note 5)
44	18S TD 7867 4242	SP Ragged Point N
45	18S TD 7855 2807	SP Everett Creek (Note 3)
46	18S TD 7731 3359	SP Foys Landing (Note 5)
48	18S TD 7672 4039	SP Stone Creek Landing (Note 4)
49	18S TD 8500 2820	SP Traps Bay (Note 5)

Table 8-1--Amphibious Vehicle Splash Points

NOTE(s) :

- (1) TLZ Falcon - use extreme caution; avoid damage to telephone cable.
- (2) TLZ Bluebird - Avoid the waterfowl improvement area.
- (3) Everett Creek - use extreme caution; avoid damage to telephone cable.
- (4) Stone Creek Landing - requires prior coordination with the Rifle Range. Call Rifle Range, Stone Bay S-3 at (910) 440-1600/2705.
- (5) Currently, these splash points are not usable, but this is subject to change.

5. Naval Gunfire

a. Purpose

(1) In order to enhance the level of training for Shore Fire Control Party(s) (SFCP) assigned to 10th Marines and other Marine units (MARSOC Units, MEUs, ANGLICO, etc.) that are required to maintain proficiency in delivery of Naval Surface Fire Support (NSFS), the CG MCIEAST-MCB CAMLEJ has authorized NSFS firing from qualified ships (as defined below) into the G-10 Impact Area. To ensure the safe conduct of SFCP/NSFS training, this chapter prescribes procedures /policies for the planning, coordination, and firing of NSFS aboard Camp Lejeune.

(2) The following is a list of general references that will be used when NSFS is used/fired at Camp Lejeune/G-10 Impact Area:  
(This List is Subject to Change)

- (a) MCO 3570.1C/DA PAM 385-63 (reference (a));
- (b) USN Fleet Exercise Publication 5B Series (reference (bi));
- (c) Allied Tactical Publication 4E-Naval Gunfire Procedures (reference (bj));
- (d) United States Navy SW 323-AB-ORD-020 Rev 2 (reference (bk));
- (e) NAVORD PUB TW024-AA-ORD-010, Ammunition (Serviceable, Suspended, and Limited Use) (reference (bl));
- (f) MCIEAST-MCB CAMLEJO 3570.1 (this Order);
- (g) 10th Marines Artillery JtRegtO P3570.1E (reference (ar));
- (h) Navigational Chart 11543 (Cape Lookout-New River River) NAD 83/WGS-84;
- (i) Camp Lejeune Military Installation Map (V742SCPLEJEUMIN) Edition 4-DMA) NAD 83/WGS-84; and
- (j) COMNAVSURFLANT Standing Letter of Instruction (LOI) for G-10 Naval Surface Fire Support (NSFS) Shore Fire Control (SFCP) ISO 10th Marines and Pre-Fire Message.

b. Scope. The procedures described in this Chapter and all references listed above apply to all Marine and Naval Forces conducting SFCP/NSFS training aboard Camp Lejeune. The CG MCIEAST-MCB CAMLEJ is the only approval authority for deviation from this Order.

c. General

(1) Inert ordnance (Training Practice) is not cleared for fire into the G-10 Impact Area and will not be used.

(2) Prior to firing, the ROIC, RSO, and/or Naval Gunfire Liaison Officer (NGLO) shall conduct a Face-to-Face, VTC, or conference call range safety brief with the scheduled firing ship(s). This brief will be conducted within 30 days of the Naval Gunfire live-fire event. The purpose of this brief is to ensure shipboard personnel are cognizant of range safety requirements, procedures, and scheduled training events. Unit conducting NSFS must release a NSFS Pre-fire message at least three working days (72 hours) before the scheduled event and ensure the CG MCIEAST-MCB CAMLEJ G-3/5 is listed on the message routing.

(3) Prior to firing into the G-10 Impact Area, the supporting ship(s) must conduct a **Pre-Action Calibration Fire (PACFIRE)** seaward in order to verify 5"/54 or 5"/62 gun system operation, check meteorological data, determine Initial Salvo Velocity (ISV) and conduct barrel warming. Results of this PACFIRE must be updated into the ship's fire control computer and verified by Gunfire Liaison Officer (GLO) prior to any firing into G-10. The ship must also conduct a GPS check of the gun/ship before conducting any live-fire into the G-10 Impact Area. The ship is responsible for scheduling the W-122 airspace and water space with the Atlantic Fleet Exercise Coordination Center and FASFAC VACAPES and air sweep.

(4) The initial fire mission into the G-10 impact area will be a single shot at center grid registration adjust mission to ensure accuracy of gun and spot corrections are having desired effect. TGT 8 will normally be used for this fire mission and the firing ship/ships must avoid the two published No Fire Areas (NFAs).

(5) In accordance with this Order, the ROIC/RSO and the participating ship(s) will maintain two-way communications with BLACKBURN at all times, on frequencies designated in paragraph 5c(7) below, while the range is in a "HOT" status.

(6) Prior to live-fire, a non-firing rehearsal utilizing reference (j) geography shall be conducted. The references are listed on page 8-9 for NGF. This rehearsal may be conducted while en-route to Camp Lejeune/Onslow Bay.

(7) Ships are responsible for maintaining clearance of water surface area 350 meters from ship along the GTL.

(8) Ships are cleared for overhead fire beyond the 350-meter point. Ships must verify munitions to be fired are cleared for overhead fire per reference (e). The references are listed on page 8-9 above for NGF. Approved DODICs for firing in to G-10 Impact Area are (no exceptions):

PROJECTILE	DODIC
HE-CVT	D350
	D295
	D346
	D803
HE-HC/PDD	D339
HE-PD	D330
	D343
	D884
HE-MT/PD	D338
	D340

HE-VT	D331
	D332
	D347
	D339
ILLUM	D328
	D353
	D354

Table 8-2--G-10 Impact Area Approved DODICs

Note: HE-VT rounds DODIC D331, D332, D347, D328, D353, D354, D333, and D334 are **NOT** cleared for overhead fire of troops.

(9) The G-10 Impact Area is defined by the following coordinates:

- (a) 3438.70N5-07717.23W7 (GRID 18STD90373605)
- (b) 3438.88N4-07716.57W3 (GRID 18STD91403637)
- (c) 3438.59N2-07715.57W6 (GRID 18STD93003580)
- (d) 3437.88N3-07715.49W3 (GRID 18STD93003447)
- (e) 3437.62N5 07716.76W4 (GRID 18STD91053405)

Note: Rounds impacting outside G-10 will result in an immediate "**CHECK FIRE**" until target coordinates/gun fire control solution can be verified.

(10) Camp Lejeune has established two NFAs within the G-10 Impact Area (UCAS Facility/Lego City and GBU-24 NFA). Live-fire into the UCAS/Lego City is not authorized.

(a) UCAS Facility/Lego City NFA Coordinates

GRID 18STD91143590  
GRID 18STD91213593  
GRID 18STD91533593  
GRID 18STD91533574  
GRID 18STD91363564  
GRID 18STD91283564  
GRID 18STD91143569

(b) GBU-24 NFA coordinates

GRID 18STD9186835222  
GRID 18STD9188835211  
GRID 18STD9187535190  
GRID 18STD9187635200

**Note: The areas must be marked on the map by the SFCP team and ship.**

(11) NSFS Spotters/Observers will normally be placed at a vantage point perpendicular to the GTL in order to adjust fires. Primary OP will be OP-5/G-3 Berm, but other OPs, such as OP-2/OP-3/OP-14, may be utilized if scheduled and signed for when training more than one SFCP/Spot Team.

(12) No intentional discharge of ordnance into the water is permitted.

(13) Naval vessels will not discard refuse/trash overboard or pump bilges while in the vicinity of Camp Lejeune/Onslow Bay.

(14) Ships must report number and type by DODIC of rounds/fuses expended to the ROIC/RSO (NGLO) at end of training. This information will then be forwarded to BLACKBURN/Range Control along with number of Marines/Sailors trained. The NGLO will update the Naval Gunfire Usage spreadsheet as required within 48 hours after the event and submit the spreadsheet to BLACKBURN/Range Control.

(15) Ships must maintain a constant lookout (visual and radar) for low flying aircraft and surface vessels that may interfere with the live-fire training event.

(16) USCG regulations require that the AIWW between Onslow Beach Bridge and Bear Tower be closed to routine marine traffic during NSFS live-firing events. Camp Lejeune will coordinate with U.S. Coast Guard for issuance of applicable Broadcast NOTMARs (BNTM) 30 days in advance, Broadcast Warnings, and schedule the Navy Boat Crew to enforce the closure.

(17) State Highway 172 aboard Camp Lejeune will be closed between the intersections with Sneads Ferry Road (south) and Lyman Road (north) during all NSFS live-firings. The unit(s) conducting training is/are responsible for providing the personnel and equipment required to accomplish the Highway 172 closure. At a minimum, eight personnel and one NCOIC with VHF communications gear and transportation will be employed. The following checkpoints will be established prior to and maintained throughout any live-fire with four road guards (positioned in groups of two) that are briefed on duties at each site listed below: This is subject to change due to other requirements/positions

(a) Intersection of Highway 172 and Sneads Ferry Road (mechanical gate with flashing lights installed and orange cones placed out).

(b) Intersection of Highway 172 and Lyman Road (mechanical gate with flashing lights installed and orange cones/barriers).

(c) At ETA-4 and Sneads Ferry Road (Gate to be locked or a Road Guard(s) must be posted).

(d) At Freeman Creek Landing and Highway 172. This Road Guard(s) also serves as a lookout on Highway 172 for vehicles that have by-passed gates.

(e) Close and lock gate at TLZ Goose.

(18) Two-way communications between all four checkpoints and the ROIC/RSO (NGLO) must be maintained continuously while the range is "HOT."

(19) Additionally, road guards will be deployed at least one hour prior to commencement of live-fire in order to thoroughly sweep Highway 172, Freeman's Creek Road, and boat launch areas prior to Highway 172 closure. It is the ROIC/RSO's responsibility to ensure that all detour signs and the two gates are properly displayed in a down position and lights are properly functioning before going "HOT." After the training event, all signs and gates need to be returned to the up position and cones removed. This operation must be checked and supervised by the ROIC/RSO (NGLO).

(20) When available, a NGLO will be placed on the firing unit of a U.S. ship during live-fire in order to facilitate a safe evolution. A U.S. Military NGLO is required for all foreign ships shooting into the G-10. All ships shall have reference (j) (The references listed on page 8-9 for NGF) to easily communicate grid locations with BLACKBURN. NGLO shall ensure ships have reference (j) The references are listed on page 8-9 for NGF) prior to going to ship so he can bring one if necessary.

d. Safety

(1) Every person involved in this training is a safety officer and can initiate a "CHECK-FIRE," when an unsafe condition or act is observed. Only the ROIC/RSO (NGLO) may ask to cancel a "CHECK FIRE."

(2) Unlike artillery, naval gunfire does not depend on the angle of fire to control the angle of fall. Due to the ballistics of naval gunfire and the related trajectory, the angle of fall for naval gunfire is a function of range. As such, **the only approved Fire Support Area (FSA) for NSFS** into G-10 Impact Area is bounded by the following coordinates:

(a) 3429.33N4-07714.61W6 (GRID 18STD94001865)

(b) 3432.31N6-07708.44W0 (GRID 18SUD03552395)

(c) 3430.90N9-07707.43W8 (GRID 18SUD05052130)

(d) 3427.89N3-07713.62W6 (GRID 18STD95451595)

(3) This FSA ensures a minimum range of 14,000 meters (14 km) to the near boundary of the G-10 Impact Area and an angle of fall greater than 20 degrees.

**NOTE: Naval Gunfire is not authorized into the G-10 NFA (UCAS Site, Lego City) or GBU-24 NFA.**

(4) The maximum height (ordinate) of the NSFS shall not exceed 17,999 ft. MSL.

(5) The ROIC/RSO (NGLO) is responsible for determining the minimum and maximum GTL relative to the assigned FSA. These will be between 309-353 degrees true.

(6) The above standards are normally not negotiable and are in place to preclude lower round trajectory resulting in a higher skipping probability.

(7) An immediate "CHECK-FIRE" will be called for any of the following reasons:

(a) Loss of communications between spotters and firing unit (ship); or ROIC/RSO, firing unit (ship) and BLACKBURN; or ROIC/RSO and all road guards;

(b) Targets within the (G-10 Impact Area) that are NOT visible to spotters;

(c) Range foulers (i.e., land, sea, or air; sea mammals, boats, turtles, aircraft, ground units, etc.);

(d) Gun or Gun Fire Control System casualty;

(e) Gun sight angle less than 15°;

(f) GTL outside safe firing limits;

(g) Marine mammals within 100 ft. of ship; and

(h) Whales, turtles, or manatees within 500 yards of ship.

e. Personnel, Duties, and Responsibilities. When conducting unit level SFCP/NSFS training, not in conjunction with a combined arms exercise live-fire, the required personnel with their duties and responsibilities are listed below:

(1) OP ROIC and RSO

(a) ROIC must be either the NGLO or qualified NSFS spotter GySgt/E-7 or above that has a valid Camp Lejeune ROIC/RSO Card.

(b) Perform duties per this Order and reference (ar).

(c) Schedule G-10 Impact Area as a Naval Gunfire event, observer positions, and EB Onslow as required.

(d) ROIC/NGLO is responsible for signing for the range/OP/impact area at least one day prior to exercise and prior to briefing NSFS. Brief shall include but not limited to pre-exercise message, FSA, concept of operations, ORM, safety issues, and ship's readiness ratings.

(e) Conduct a Face-to-Face brief with designated firing unit(s) prior to any live-fire into the G-10 Impact Area.

(f) ROIC/RSO duties in accordance with Chapter 1. ROIC/RSO may also serve as the RLSO (if school trained and certified by unit CO), when employing lasers.

(2) Firing Unit

(a) The CO of the NSFS ship is responsible for all aspects of safe firing (sea side) aboard the ship.

(b) Responsible to adhere to all regulations and procedures prescribed in Chapter 2 of this Order.

(c) Must request airspace/water space, W-122 (surface-17,999 ft.), from FACSFAC VACAPES and Onslow Beach water space from Camp Lejeune, Range Control.

(d) Ensure all ammunition is cleared for overhead fire and is on the approved DODIC list.

(e) Maintain positive two-way communication with BLACKBURN on 233.8 UHF (primary) or 34.70 VHF (primary) and commercial telephone (910) 451-3064/4449 (alternate). Conduct communication checks every 30 minutes on the half hour and hour when in a "HOT" status.

(f) To go "HOT," the ship must follow procedures as prescribed in this Order.

(g) When firing in conjunction with a combined arms exercise personnel required include: OP ROIC, RSO/RLSO, G-10 Fixed-wing/Helo ROIC/RSO, and others as required.

f. Coordinating Instructions

(1) Live-fire NSFS/SFCP training will be scheduled per this Order. Normally 30 days lead time is required in order to coordinate AIWW closure and issue the appropriate Broadcast NOTMARS, schedule the range sweep aircraft and airspace warnings. Requests of less than 30 days will be handled on a case-by-case basis. The 2d Marine Division, 10th Marines, and MEUs NGLOs will assist in the planning and coordination of all NSFS/SFCP live-fire training and shall be contacted early on in the process. All units conducting Naval Gunfire at Camp Lejeune must ensure all message traffic includes the CG MCIEAST-MCB CAMLEJ (G-3/5).

(2) Supported unit (SFCP/Spot Team) will publish a pre-exercise message to all concerned no later than 72 hours from execution of exercise. Pre-Exercise format per reference (c) (The references are listed on page 8-9 for NGF).

(3) Full service charge is the only authorized propellant for firing aboard Camp Lejeune. Reduced charge is strictly forbidden.

(4) Only "qualified" NSFS capable ships will be assigned to conduct live-fire support for SFCP training aboard Camp Lejeune. A qualified ship is designated as one that has successfully completed a FIREX I qualification and has an M-2 or better NSFS readiness rating.

g. Communications

(1) Range Control MCB CAMELJ nets:

(a) Range Control Safety Net 34.70 FM.

(b) Air Safety Control Net 233.8 UHF.

(c) Civilian Air Safety Net 119.5 VHF.

(d) Commercial Telephone Number for BLACKBURN (910)451-3064/4449 or DSN 751.

(2) NSFS Coordination/Spotter Nets and Road Guard Coordination Net will be promulgated in the Pre-Exercise message.

(3) After the scheduled live-fire event, the using unit will provide after action comments to Range Control and update the NSFS Usage Spreadsheet with the required updated data. A copy of the updated spreadsheet will be sent to Range Control within 48 hours after completion of the event.

APPENDIX A

ACRONYMS/DEFINITIONS

1. Acronyms

°F.....	degrees Fahrenheit
AAV.....	Amphibious Assault Vehicle
AC/S.....	Assistant Chief of Staff
AESO.....	Ammunition & Explosives Safety Officer
AHA.....	Ammunition Holding Area
AIWW.....	Atlantic Intracoastal Waterway
AFS.....	Air Field Seizure
ALZ.....	Administrative Landing Zone
AMHS.....	Automated Message Handling System
ARSO.....	Assistant Range Safety Officer
ASP.....	Ammunition Supply Point
ATC.....	Air Traffic Control
BFA.....	Blank Firing Adapter
BP.....	Battle Position
cal.....	caliber
CAPEX.....	Capability Exercise
CAS.....	Close Air Support
CASEVAC.....	Casualty Evacuation
CBC.....	Company Battle Course
CBRN.....	Chemical, Biological, Radiological, and Nuclear
CCL.....	Command Certification Letter
CCP.....	Combat Pistol Program
CERTEX.....	Certification Exercise
CG.....	Commanding General
CMP.....	Combat Marksmanship Program
CQB.....	Close Quarters Battle
CVOT.....	Combat Vehicle Operator's Training
CVP.....	Conversion Point
DA PAM.....	Department of Army Pamphlet
DASC.....	Direct Air Support Center
DoD.....	Department of Defense
DODIC.....	Department of Defense Identification Code
DZ.....	Drop Zone
DZSO.....	Drop Zone Safety Officer
ECCC.....	Emergency Consolidated Communication Center
ECON.....	Environmental Conservation
EDP.....	Emergency Divert Pattern
EMD.....	Environmental Management Division
EOD.....	Explosive Ordnance Disposal
ESO.....	Explosives Safety Office
ESQD.....	Explosive Safe Quantity Distance
ETA.....	Engineer Training Area
E-TAR.....	Electronic Training Area Requests
EOTG.....	Expeditionary Operations Training Group

FAA..... Federal Aviation Administration  
FAC..... Forward Air Controller  
FAC(A)..... Forward Air Controller Airborne  
FACSFAC..... Fleet Area Control and Surveillance Facility  
FARP..... Forward Arming and Refueling Point  
FCLP..... Field Carrier Landing Practice  
FDC..... Fire Direction Center  
FEREIR..... Field Exercise Request for Environmental Impact Review  
FM..... Field Manual  
FOB..... Forward Operating Base  
ft..... feet/foot  
GCS..... Ground Control Station  
GIS..... Geographic Information System  
GP..... Gun Position  
GSRA..... Greater Sandy Run Area  
GTL..... Gun Target Line  
HA..... Holding Area  
HAZMAT..... Hazardous Material  
HC..... High-Capacity  
HEAT..... HMMWV Egress Assistance Trainer  
HERO..... Hazards of Electromagnetic Radiation to Ordnance  
HMG..... Heavy Machinegun  
HQ..... Headquarters  
HRST..... Helicopter Rope Suspension Training  
I&E..... Installation & Environment  
IAW..... In Accordance With  
IED..... Improvised Explosive Device  
IGIR..... Geographic Information Repository  
in..... inch(es)  
IP..... Initial Point  
ITX..... Integrated Training Exercise  
JTAC..... Joint Terminal Attack Controller  
KGS..... Knots Ground Speed  
LAV..... Light Armored Vehicle  
LAW..... Light Anti-Tank Weapons  
lbs..... pounds  
LHD..... Landing Helicopter Deck  
LRS..... Launch and Recovery Site  
LSRB..... Laser Safety Review Board  
LTI..... Limited Technical Inspection  
LZ..... Landing Zone  
MAC..... MOUT Assault Course  
MAET..... Modular Amphibious Egress Trainer  
MAGTF..... Marine Air-Ground Task Force  
MARSOC..... Marine Corps Forces Special Operations Command  
MCCS..... Marine Corps Community Services  
MCO..... Marine Corps Order  
MCOLEF..... Marine Corps Outlying Field  
MCRP..... Marine Corps Reference Publication  
MCWP..... Marine Corps Warfighting Publication

MEB..... Marine Expeditionary Brigade  
MEDEVAC..... Medical Evacuation  
MEF..... Marine Expeditionary Force  
MEU..... Marine Expeditionary Unit  
MILCON..... Military Construction  
MLSR..... Missing, Lost, Stolen or Recovered  
MOA..... Military Operations Area  
MOUT..... Military Operations in Urban Terrain  
MP..... Mortar Position  
MRE..... Meal, Ready-to-Eat  
MSL..... Mean Sea Level  
MSOS..... Marine Special Operations School  
NAVAID..... Navigational Aid  
NCO..... Noncommissioned Officer  
NEPA..... National Environmental Protection Act  
NFA..... No Fire Area  
NLT..... No Later Than  
nm..... nautical mile  
NOAA..... National Oceanographic and Atmospheric Administration  
NOHD..... Nominal Ocular Hazard Distance  
NOTAM..... Notice to Airman  
NOTMAR..... Notice To Mariners  
NSFS..... Naval Surface Fires Support  
NSTAR..... Non-Standard Training Area Request  
NWS..... National Weather Service  
OP..... Observation Post  
ORM..... Operational Risk Management  
ORRV..... Off-Road Recreational Vehicles  
PAO..... Public Affairs's Office  
PARAOP..... Parachute Operation  
PCS..... Portable Control Station  
PIT..... Portable Infantry Target  
PMO..... Provost Marshall's Office  
POC..... Point Of Contact  
POV..... Privately-Owned Vehicle  
PSO..... Position Safety Officer  
RCA..... Riot Control Agent  
RCD..... Range Control Division  
RCO..... Range Control Officer  
RCRS..... Resource Conservation and Recovery Section  
RCW..... Red-Cockaded Woodpecker  
RDMD..... Range Development and Management Division  
RETS..... Remote Engagement Target System  
RFMSS..... Range Facility Management Support System  
RFO..... Range Firing Warning and Airspace Utilization Order  
RLSO..... Range Laser Safety Officer  
ROIC..... Range Officer-In-Charge  
ROZ..... Restricted Operating Zone  
RSO..... Range Safety Officer  
RSS..... Range Safety Specialist

RTA..... Range and Training Area  
SAR..... Search and Rescue  
SCA..... Small Craft Advisory  
SDZ..... Surface Danger Zone  
SESAMS..... Special Effects Small Arms Marking System  
SIMCAS..... Simulated Close Air Support  
SIO..... Safety Insertion Officer  
SIR..... Serious Incident Report  
SNCO..... Staff Non-Commissioned Officer  
SOI..... School of Infantry  
SOP..... Standing Operating Procedure  
SOUM..... Safety of Use Memorandum  
SPIE..... Special Insertion and Extraction  
SPIN..... Special Instruction  
SRR..... Special Range Request  
SUA..... Special Use Airspace  
TACP..... Tactical Air Control Party  
TAR..... Training Area Request  
TCC..... Tropical Cyclone Condition  
TECOM..... Training and Education Command  
TLZ..... Tactical Landing Zone  
TM..... Technical Manual  
UAS..... Unmanned Aerial System  
UCAS..... Urban Close Air Support  
UCMJ..... Uniform Code of Military Justice  
UET..... Underwater Egress Trainer  
UHF..... Ultra High Frequency  
USMC..... United States Marine Corps  
UTF..... Urban Training Facility  
UXO..... Unexploded Ordnance  
VCP..... Vehicle Check Point  
VHF..... Very High Frequency  
WBGTI..... Wet Bulb Globe Temperature Index  
WDZ..... Weapons Danger Zone  
WTBn..... Weapons Training Battalion  
WWTP..... Waste Water Treatment Plant

## 2. Definitions

Administrative Area. An area assigned for administrative and logistical functions, such as housing, troop billets, offices, industrial areas, storage, and maintenance areas. Field training and live firing is not conducted in administrative areas.

Administrative Landing Zone (ALZ). A designated helicopter-tiltrotor landing zones, which provides major commands ready access to air transportation and medical evacuation. ALZs are designated by number.

Air Sentry. An individual designated by the officer in charge of firing to maintain surveillance of an assigned sector of airspace to warn of the approach of aircraft/sea mammal. In some cases, air sentries also observe navigable waters for the approach of vessels.

Approach and Retirement Route. A predestinated air traffic lane for helicopter-tiltrotor, generally used in air or air/ground training exercises. These routes may be utilized by BLACKBURN, the DASC or a helicopter direction center to route helicopter traffic around potentially dangerous areas.

BLACKBURN. Radio call sign for Range Fire Desk on 34.70 FM, 233.8 UHF, and 119.5 VHF.

Blast Focus. The refraction patterns of shock waves through the earth's atmosphere.

CBRN Agents. Devices, biological agents and chemicals, which may cause damage, incapacity, injury, sickness, and/or death.

CHIEFTAIN. The radio call sign for the DASC (when activated) for all aircraft (Radio 34.70 FM, 233.8 UHF, and 119.5 VHF).

Coastal Pilot. Regulations concerning federally controlled waterways from Cape Henry to Key West. Published by the U.S. Department of Commerce. It delegates to the Commanding General, MCIEAST-MCB CAMLEJ, enforcing agency power for waters in the "New River, North Carolina and vicinity: Marine Corps Firing Ranges."

Common Impact Area. The impact area created when the surface danger zone of concurrently used ranges overlap.

Control Zone. An airspace of defined dimensions designated by appropriate authority, usually the FAA. The zone extends upward from the ground or water and includes one or more air zones, within which rules apply for the protection of air traffic.

Cook-Off. The detonation of any or all of the explosive components of a round chambered in a hot weapon, caused by the heat of the weapon.

Danger Area. A sea or water space in which hazards may exist to mariners. The New River and Atlantic Coast Sector areas are designated by Coast Pilot 4 as danger areas due to military training exercises conducted at Camp Lejeune.

De-armor (.50 CAL). A cartridge actuated tool unique to EOD, used principally for shearing, jamming purposes to defeat fuses or improvised explosive devices (IEDs) in a rapid manner. Uses either an

electric or ball (minus the projectile) .50 caliber cartridge to fire either blast, steel shot, water or various slugs through a 12 in. barrel.

Demolitions. Explosive charges designed to add realism to training or to destroy material/unsafe ammunition.

Direct Air Support Center (DASC). A subordinate operational component of a tactical air control system designed for control and direction of close air support and other tactical air support operations, and normally collocated with fire-support coordination elements. Call sign "CHIEFTAIN."

Direct Fire Weapons. Weapons that deliver fire when the weapons are laid by sighting directly on the target using the weapons sighting equipment.

Disrupter. An explosive tool used from a robot or can be placed manually to defeat fuse/fuse components of an improvised explosive device (IED).

Drop Zone (DZ). A tactical landing zone in which personnel or cargo paradrops are authorized.

Dual Communications. Two means of communication, usually radio backed up by telephone, (either a MAG line or dial telephone). Required between a unit and "BLACKBURN" before any training being conducted aboard Camp Lejeune with a live-fire range, training area, or training facility.

DuD. Any ammunition that, having been fired, placed, dropped or thrown, fails to function in the manner intended.

Emergency Disposal. The immediate disposal of hazardous munitions by detonation or burning at EOD Site #1, EOD Site #2, or the G-10/K-2 impact areas.

Exclusion Area. Those areas, by the very nature of the operation of hazards existing therein, i.e., the Ammunition Supply Point, the Field Ammunition Supply Dump when occupied, preclude their use for any type of troop/vehicle maneuver or tactical training. Training units and individuals will remain clear of these areas at all times. Access is limited to authorized personnel in the performance of official duties.

Field Training Facilities. Those areas designated for a specific type of training, normally not requiring the use of live ordnance. For example, dry net training facilities, MOUT Complex, Enhanced MOUT (E-MOUT), Mobile MOUT, Urban Training Facility (UTF) and Combat Town are classified as field training facilities.

Fire and Maneuver Range. Ranges on which troop movement and live firing may be conducted simultaneously.

Firing Lane. The area within which a single person, aircraft, or vehicle-mounted weapon is fired. It consists of a start-firing line, cease-firing/disarm line and left and right limits of fire.

Firing Line or Point. The location from which a weapon is fired at a target or impact area.

Flanking Fire. Live-fire delivered against the flank of a target.

Flat Trajectory/High-Velocity Weapons. Tank main guns, LAV main guns, AAV weapon systems, artillery when firing direct fire.

Food Plots. Food plots are cultivated sites within various maneuver/TAs. They are intended to assist in the preservation of natural wildlife.

Forest Fire Danger Conditions. A restriction/ condition placed on training exercises due to the possibility of forest fire. (Fire-Readiness Plan 1 to 8).

Forward Air Controller (FAC). An officer (aviator/pilot) member of the tactical air control party who, from a forward ground or airborne position, controls aircraft in close air support for ground troops.

Gun Position (GP). Pre-selected and surveyed positions from which artillery and mortars engage in high ordinate indirect firing exercises.

Hang-Fire. A delay in the functioning of ordnance. The duration of such delay is unpredictable and may extend from a fraction of a second to several hours.

Hazardous Area. Areas made dangerous to personnel by live firing, mines or dangerous contaminants. Specific authorization from Range Control must be obtained before entering such areas at Camp Lejeune.

High Ordinate Firing. Firing of projectiles above an altitude of 500 ft.

High Explosive Impact Area. Impact areas specifically designated for all types of ordnance, (dud-producing) such as, G-10, and K-2 high explosive impact areas. These areas are referred to as dedicated, or permanent impact areas. They must not be confused with the danger area forward of the live firing activity.

Impact Area. The area into which the fire of weapons is directed. It usually extends from the far boundary of the target line or area to the maximum range of the weapon and ammunition fired. It is bounded on the flanks by the right and left limits of fire established in the surface danger area diagram for each weapon.

Indirect Fire Weapons. Normally considered to be artillery and mortars.

Known Interference. Conditions affecting the safe conduct of live firing or training exercises.

Land Line (LL). A metallic line between two telephones or between telephones and a switchboard.

Laser Terms:

Area S: A 50-meter radius around the target from which all specular surfaces shall be removed, covered, painted, or destroyed.

Area T: The area within an established laser surface danger zone measured from the laser device to "Area T" meters downrange where no object will be lased. Personnel shall avoid direct exposure to unprotected skin up to "Area T" meters from the laser device

Backstops: Opaque structures or terrain in the controlled area such as a hill, a dense tree line, or a windowless building that would completely obstruct any view beyond it and completely terminate a laser beam that may miss the target.

Buffer Zone: A safety margin on either side and above and below the approved target area, extending to a distance at which the beam is terminated by a backstop extending across the target zone, or when the Nominal Ocular Hazard Distance (NOHD) limit is reached. A vertical buffer zone covers the angular distances below the highest point on a backstop or above the non-lasing area. The laser horizontal buffer zone covers the angular distance to the left of the left most targets and the right of the right most targets.

Intrabeam Viewing: Looking directly at the source of the beam or reflected beam from within the beam.

Laser: The acronym LASER stands for Light Amplification by Stimulated Emission of Radiation. A device capable of producing a narrow beam of monochromatic light in which all the waves are in phases or are coherent.

Range Laser Safety Officer/Range Laser Safety Noncommissioned Officer(RLSO/RLSNCO): A designated officer, warrant officer or noncommissioned officer of the firing unit who is responsible for ensuring compliance with the Marine Corps Order on Lasers, Unit SOP and this Order for laser operations and training.

Laser Range-Finder: A range-finder employing a laser device to emit a pulsed laser beam that is aimed at the target. The range is determined automatically by electronically measuring the length of time it takes for the light beam to travel from the laser to the target, be reflected from the target and return to the range-finder.

Laser Safety Eyewear: Protective eyewear designed specifically to permit the user to be exposed to either the direct or reflected laser beam from specific laser devices without eye injury.

Laser Surface Danger Zone (LSDZ): A V-shaped zone designed to contain the laser beam (while lasing) with buffer (safety zones on either side, and above and below the approved target area).

Nominal Ocular Hazard Distance (NOHD): The NOHD for direct intrabeam viewing is the minimum distance beyond which an unprotected person may stand in the beam and be exposed repeatedly without injury provided he or she does not look at the beam source with unfiltered magnifying optics.

Nominal Ocular Hazard Distance (NOHD)-Magnified (NOHD-MAG): The NOHD for intrabeam viewing through magnifying optics with an 80mm objective and 7mm exit pupil.

Specular (mirror-like): A specular surface is one in which an individual can see his/her undistorted reflection. Examples of specular surfaces are; vehicle windows, vision blocks, searchlight cover glass, sheets of plastic, mirrors, and unpainted metal.

Live-fire Range. A range/ETA on which live-fire exercises, including the use of some types of practice ammunition, may be conducted.

Malfunction. Failure of an ammunition item to function as expected when fired or launched, or when explosive items function under conditions that should not cause functioning. Malfunctions include hang fires, misfires, duds, abnormal functioning, and premature functioning of explosive ammunition items under normal handling, maintenance, storage, transportation, and tactical deployment. Malfunctions do not include accidents or incidents that result solely from negligence, malpractice, or situations such as vehicle accidents or fires. Malfunctions are divided into three classes:

Class A. Malfunctions that result in death or lost-time injury, are similar to previous malfunctions that have resulted in death or lost-time injury, are judged as having had an appreciable probability of causing death or lost-time injury, or that have adverse political implications.

Class B. Malfunctions that result in damage to major equipment that cannot be repaired at unit level maintenance or result in an ammunition suspension that significantly impacts readiness or training.

Class C. Malfunctions that are neither class A or class B.

Maneuver Area (MA). TAs, designated alphabetically by double letters (AA, AB, and CC) in which approved field training exercises using blank ammunition, certain pyrotechnics and limited demolitions may be conducted.

Misfire. A complete failure to fire which may be caused by a faulty firing mechanism or a defective element in the propellant charge.

Navigable Waters. Waters upon which navigation of vessels is possible, but not always permissible. Navigable waters in the Camp Lejeune complex are governed by Coast Pilot 4, which delineates the circumstances and areas within which vessels may or may not navigate.

No Fire Zone (NFZ). An area designated by the appropriate commander into which fires or effects are prohibited. Also may be called a No Fire Area (NFA).

Notice to Airmen (NOTAM). A notice containing information concerning the establishment, condition, or change in any aeronautical facility, service, procedures, or hazard, the timely knowledge of which is essential to personnel concerned with flight operations.

Notice to Mariners (NOTMAR). A publication to mariners and vessels warning of conditions dangerous to navigation such as live firing or amphibious exercises.

Observation Post (OP). A point from which impacting projectiles may be observed.

Overhead Fire. The firing of projectiles over the heads of personnel or over areas in which the presence of personnel is suspected.

Paradrop. The controlled aerial delivery by parachute of personnel or equipment.

Practice Range. A range upon which only specified types of practice ammunition may be fired.

Prohibited Area. An area in which training is not authorized; i.e., the N-1/BT-3, G-10, and K-2 impact areas.

Protected Area. An area in which training normally is not authorized. Those areas placed off-limits for the protection of endangered animal and plant species, historical/archaeological sites, and those with environmental concerns, i.e., Red-cockaded Woodpecker habitat, Rough-leaved Loosestrife areas, and the beach sand dunes as described in Chapter 6 of this Order.

Pyrotechnic. Non-injurious smoke or signals, flares (pop ups or hand held) or grenades. White phosphorous is not considered a pyrotechnic for the purpose of this Order.

Quiet Hours. No artillery, mortar, or dud-producing firing permitted during the stated times.

Range. A training facility designated for live-fire, practice firing of weapons, demolitions, or live-fire and maneuver/movement exercises.

Range Control. The Installation organization responsible for safely scheduling, coordinating, and controlling all ranges, TAs, air space, and water space. Range Control maintains a staff (BLACKBURN) on communications watch during all live firing, paradrop, and fixed-wing/rotary-wing air exercises/operations.

Range Control Officer (RCO). The officer responsible for enforcing adherence to safety regulations, scheduling and assigning use of ground, air and sea space.

Range Control Fire Desk Operator (FDO). The government employee (GS, Civilian) assigned communications/fire desk tour during live firing, non-live-fire training, paradrop, and rotary/tilt-rotor/fixed-wing exercises (call sign "BLACKBURN"). The direct representative of the Range Control Officer.

Range Firing Warning and Airspace Utilization Order (Daily AMHS Message). Current listing of scheduled ranges, airspace, training/maneuver areas and additional notes.

Road Guard(s). An individual or individuals designated to maintain surveillance over an assigned locale to prohibit unauthorized entry into the surface danger area/hazard zone and to give the alarm in the event he detects such entry. Usually assigned in pairs by policy/safety.

Range Officer-in-Charge of Firing (ROIC). Designated by the Commanding Officer of the training unit, the ROIC of firing assumes overall responsibility for all aspects of live-fire, paradrop or air exercises.

Range Operator (RO). A contractor that provides a service on a specific range and its equipment.

Range Safety Officer (RSO). An officer or SNCO assigned by the ROIC to assist in enforcing all safety measures within the air/surface danger area.

Restricted Airspace. Hazardous airspace established by the Federal Aviation Administration. Permission must be granted to aircraft before traversing restricted airspace during periods when the airspace is in use. Restricted airspace is activated during various times and to various altitudes. Details as to boundaries, altitudes, time of use, and controlling agencies are published by the Federal Aviation Administration and may also be found on radio Facility Charts. Changes in restricted airspace are published in Notices to Airmen (NOTAMS) and the "Airmen's Guide."

Restricted Area. A general definition applicable to areas in which controls are imposed over troop and vehicular movements due to the proximity of quarters, schools, recreational facilities, etc.

Rocket Wrench. An explosive actuated tool unique to EOD, which uses two M147 cartridges to remove hazardous fuses from projectiles, rockets, and bombs by turning rapidly.

RSP. Render Safe Procedure for any ordnance or IED based on EOD 60 Series Publications or best-known avenue of attack to defeat an item devised by the Senior EOD Technician onsite and recommendation to the On Scene Commander.

Special Electric Impulse .50 Caliber Cartridge. M174, .50 Caliber ball round, minus the projectile and set up to function electrically.

Surface Danger Zone (SDZ). An SDZ is generally composed of a firing line/area or gun position, an impact area, and a secondary danger area. An SDZ exists from the moment the projectile leaves the muzzle/launcher until impact. The SDZ will vary with each weapon. The impact area and associated secondary danger area are also considered as an SDZ. For further information on SDZs consult MCO 3570.1\_/DA PAM 385-63.

Survey Control Point. A permanent or semi-permanent marker placed to denote a topographical reference point.

Tactical Landing Zone (TLZ). A predesignated/surveyed helicopter-tiltrotors landing zone, usually named after a bird, which provides air and ground units a site for helicopter-tiltrotor operations.

Temporary Interruption of the Atlantic Intracoastal Waterway (AIWW). Blocking traffic on the AIWW due to training exercises. A temporary interruption will not exceed one hour or must be in the broadcast NOTMARS for up to four hours at a time.

Toxic Agent. Poisonous agents that are capable of causing physiological injury.

Training Area (TA). An area designated alphabetically by two letters within which authorized training/maneuver exercises using blank ammunition, certain pyrotechnics, and limited demolitions may be conducted.

TA Request (TAR). Request to use ranges, airspace, TLZs, ALZs, training/maneuver areas, adjacent waterways, etc. Submitted electronically to Range Control.

Training Facility. A structure, range or area specifically designed for military training.

Unexploded Ordnance (UXO). Ammunition and explosives which have been primed, fused, armed, or otherwise prepared for action and which have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations installations/communities, personnel, or material, and remain unexploded either by malfunction or design or any other cause.

Unserviceable Ammunition. Ammunition beyond its life expectancy or which fails to respond as its design intended. It can include a single round or a complete ammunition lot.

Verona LOOP. Designated due to the proximity of the town of Verona. A complex of training facilities/TAs located west of New River.

Warning Area. Airspace similar to a restricted area, posing a potential hazard to flight or navigation. Penetration of a warning area during periods of activity may be extremely hazardous to the pilot, aircraft, and passengers. Warning areas are established to permit military maneuvers and firing in certain offshore areas as a necessary feature of combat training. Changes in warning areas are made in the same manner as changes to restricted areas.

Wet Bulb Globe Temperature Index (WBGTI). A rating of temperature and humidity as it affects personnel. Intensity of human exertion must be reduced as the WBGTI reaches specific levels.

APPENDIX B

IMPACT AREAS

1. General. There are three main impact areas aboard Camp Lejeune: N-1/BT-3, G-10, and K-2. G-10 and K-2 are the only impact areas designated where dud-producing ordnance and training practice ordnance can be fired. N-1/BT-3 is restricted to only non-dud producing ordnance. No personnel will enter a designated impact areas aboard Camp Lejeune without approval from the RCO and with Base EOD support to escort them. For the purpose of constructing an SDZ/WDZ, all buffer, and ricochet areas, will be contained within the impact area. Impact areas and range boundaries are marked with red warning signs: "Danger Impact Area Keep Out". BLACKBURN controls all live-fire into all impact areas aboard Camp Lejeune.

2. Emergency Destruction and Combat Disposal TAs. The G-10A and K-2A Emergency Destruction and Combat Disposal TAs within the G-10 and K-2 impact areas are authorized for use to support established training in the disposal of unserviceable ammunition and explosives. G-10A and K-2A must be scheduled in RFMSS. Chapter 3 of this Order provides scheduling procedures.

3. Impact Areas

IMPACT AREAS	LOCATION	PRIMARY USE OR DESCRIPTION	PAGE
N-1/BT-3	Southeast Corner of MCB Camp Lejeune	Live-fire Riverine Training	B-2
G-10	Center of MCB Camp Lejeune East of the New River	Training Range	B-7
K-2	Center of MCB Camp Lejeune West of the New River	Training Range	B-21

4. N-1/BT-3 Impact Area

**IMPACT AREA:** N-1/BT-3

**DESCRIPTION:** Bomb and Target Range  
(Brown's Island, surrounding  
marsh/waterway areas)

**PRIMARY RANGE USE:** H-1 Live-Fire Riverine  
Familiarization Range

**ALTERNATE RANGE USES:**

1. Air to Ground Weapon (TP Only)
2. G-5 Range
3. Field Artillery Direct Fire Range (G-7)
4. Helicopter and tiltrotor Gunnery Range
5. Machinegun Mounted on Boats Familiarization Range
6. E-1 Stinger Missile Range
7. PGM Range (Limited)

**STATUS:** Active

**LOCATION:** South-East Corner of Camp  
Lejeune

**PRIMARY DIRECTION OF FIRE:** 168 degrees magnetic

**WEAPONS ACCOMMODATED:** All Pistol  
All Shotguns  
All Rifles  
All Machineguns  
MK19 40mm Linked  
LAR 25mm Chain Gun  
Helicopter and tiltrotor Weapons  
Aircraft Bombs  
M777A2 (G-7 Only)  
Stinger Missile Launcher  
Inert Hellfire/Inert APKWS 2.75  
Inert (TP) GBU-10 Series (Laser Guided Bomb)  
Inert (TP) GBU-12 Series (Laser Guided Bomb)  
Inert (TP) GBU-31 Joint Direct Attack Munition (JDAM)  
Inert (TP) GBU-32 Joint Direct Attack Munition (JDAM)  
Inert (TP) GBU-38 Joint Direct Attack Munition (JDAM)

B-2 Enclosure (1)

**AMMUNITION AUTHORIZED:** All Pistol  
All Shotguns  
All Rifles (A606 upon SRR)  
All Machineguns  
20mm (T)  
25mm (TP-T and APDS-T)  
30mm (TP-T)  
40mm Linked (TP)  
2.75 inch Rocket (TP/Illum)  
MK76 Practice Bomb  
MK80 Series Bombs (Inert)  
M781 Practice Round or M576  
155mm HE (G-7 Only)  
Stinger Missiles

**TARGETS/SIMULATORS/DEVICES:** Hard Targets

**FACILITIES:** None

**UTILITIES AVAILABLE:** Electricity: No  
Lights: No  
Water System: No

**INSTALLED COMMUNICATIONS:** None

**AREA SUITABILITY:** Company

a. Range Use Restrictions/Comments/Conflicts

(1) Projectiles will not be fired to impact within 200 meters of the AIWW.

(2) HE/HEI aircraft bombs/rockets/missiles/30mm/25mm/20mm are not authorized.

(3) Observation Posts, Bear Tower and Onslow North Tower, serve N-1/BT-3.

(4) No class 3R, 3B, and 4 Lasers are authorized.

(5) Safety Restrictions. AIWW may have to be closed during firing depending on range scheduled.

(6) Bear Tower and Onslow Beach North Tower are included when ranges are scheduled in RFMSS and signed for. They must be manned prior to aircraft sweep.

(7) An aerial sweep of this area must include a sweep for people, small water craft, and marine mammals in the AIWW, creeks, inlets, marsh areas, and the Ocean. The sweep must be conducted

before live firing. The aerial sweep must be scheduled two calendar months out or the unit will be responsible for scheduling its own sweep.

(8) Chapter 2 discusses the rules for avoiding marine mammals in a water impact area.

(9) Maneuver Area Restrictions: No maneuvers authorized in this impact area due to the fact that this is an old duded impact area. Units that require target emplacement to conduct training/live-fire on this range must request Base EOD support.

(10) Night use is authorized if properly scheduled and a air sweep is conduct before darkness/night fall.

(11) Navy Guard Boats will be provided by RCD upon approval of scheduled event in RFMSS.

b. Other Considerations. Parachute Ops (free fall only) within five nm of the range will close the range.

c. Special Instructions

(1) Firing into the N-1/BT-3 Impact Area must be scheduled through Range Control scheduling two calendar month in advance of the first day of firing to allow for publication of a NOTMARS and request for air sweeps. Requests received less than one calendar month in advance will not be approved until verification of support for the sweep aircraft. See the Range Cards for E-1, H-1, G-5, and G-7.

(2) Be familiar with the contents of Chapter 5 of this Order and Range Cards.

(3) Display warning signals from the Onslow Beach North and Bear tower flag poles before firing and until the range is cleared cold. Red Range Flags will be flown during daylight and flashing red lights will be used from sunset to sunrise.

(4) Position range guards with radio and binoculars (NVGs for night firing) at least one half hour prior to the aerial search to serve as air/water sentries in Bear Creek and Onslow Beach North Tower. Guards are to promptly notify the ROIC/RSO or FAC before a vessel or aircraft not involved in the exercise penetrates the SDZ/WDZ. Sectors of observation are: Bear Creek Tower 58 degrees to 223 degrees magnetic and Onslow Beach North Tower 35 degrees to 235 degrees magnetic.

(5) Firing will cease if Range Flags or flashing lights are lowered or extinguished for any reason.

(6) The using unit will ensure that a visual search has been made of the target complex, AIWW, inlets, marshes, dunes and that the Navy Safety Boats are in position half an hour prior to firing to ensure that the area is safe. The FAC may use his aircraft as appropriate in conducting the aerial search immediately prior to aircraft firing exercises.

(7) The RSO is required to have positive and continuous communications with tower guards, the ROIC, Navy Safety Boats, and BLACKBURN.

(8) Air Operations

(a) Fixed wing aircraft must use control points/IP's and run in headings as contained in Chapter 4 of this Order. Authorized ammunition is MK76 and MK80 series inert bombs and 2.75-inch rockets TP, 20mm TP, 25mm TP, 30mm TP delivered at 20 degrees or greater dive angle. Requests for Wdz profiles shall be sent to the RSS.

(b) Helicopter and tiltrotor aircraft headings are 170 to 190 degrees magnetic. Unless specifically authorized by the ROIC, the ordnance release point will be south of the AIWW. Authorized ammunition is 2.75 inch TP rockets, 7.62 mm, .50 caliber, and aerial gunnery with 20mm TP, 25mm TP, and 30mm TP.

(c) A line 800 meters from the seaward shore south of the AIWW is designated as a permanent bomb line, beyond which aircraft ordnance may not be impacted.

(d) Close air support operations will be under the positive control of a JTAC/FAC. The JTAC/FAC must inform aircraft performing missions of gun positions, ranges, and TAs adjacent to N-1/BT-3 that are occupied.

(e) During night time close air support operations (helicopters, tiltrotors, and fixed wing), when weather conditions are below a 2000 ft. ceiling and five miles visibility (3000 ft. and five miles for fixed-wing with ordnance), or when range guards cannot visually observe waterborne traffic in the AIWW or seaward for 1000 meters, aircraft firing or bombing exercises will not be permitted without continuous lighting by flares (or other measures approved by the RCO) to ensure no vessel enters the surface danger zone.

(f) To deliver/fire the Inert (Only) Hellfire, Inert (Only) (APKWS) Advanced Precision Kill Weapon System 2.75mm Rocket, Inert GBU-10 Series (Laser Guided Bomb), Inert GBU-12 Series (Laser Guided Bomb), Inert GBU-31 Joint Direct Attack Munition (JDAM), Inert GBU-32 Joint Direct Attack Munition (JDAM) Inert GBU-38 Joint Direct Attack

Munition (JDAM) very detailed coordination and planning must take place with Range Control and other directed agencies. Additional guidance due to environmental concerns and issues/based on the time of the year will be published separately.

1. This type of training event requires that North and Bear Towers are manned by the using unit, and one of the towers must be manned with a JTAC/FAC with the required communications between the towers, BLACKBURN, and the aircraft delivering/firing. If Lasers (All Classes of Lasers) are to be used (GBU-10/GBU-12) the using unit must have the required Range Laser Safety Officer (LRSO) posted and is properly certified in writing.

2. This event requires that all training areas/training facilities within the published WDZ must be cleared of all personnel/vehicles and deconflicted as required.

3. The Hellfire Missile and (APKWS) Advanced Precision Kill Weapon System 2.75mm Rocket requires that Highway 172 and AIWW be closed/secured at the same time. Highway 172 must be secured/closed with the required road guards posted/gate checked /secured. AIWW also must be closed and the Navy Boat Crew posted and required NOTAM published. Only one missile/rocket can be fire at a time. All training areas or training facilities that are impacted by the WDZ must be swept/cleared before any live-fire can be conducted.

4. Inert GBU-10, Inert GBU-12, Inert GBU-31, Inert GBU-32, and Inert GBU-38 requires the AIWW to be closed and the required surrounding training area that are impacted are swept/cleared and Navy Boat Crew posted NOTAM published.

5. An air sweep is conducted of the entire area impacted for this event. This requires that an air sweep be scheduled at least two calendar months in advance.

6. Only the targets on the north side of Brown's Inlet (Brown's Island) are authorized for the systems listed above. Hellfire Missile (Inert) targets are placed on the north end of Brown's Island on top of the sand dunes that are visible from the G-10 area firing position.

7. Only Inert ordnance is authorized into Brown's Inland.

8. Only the listed airspeed, altitude, release angle, release range, run-in headings as listed in the approved WDZs are authorized.

9. All inert JDAM requires a "Tripe Check Requirement" with the pilot/FAC/JTAC before any release.

10. A FAC/JTAC must confirm and account for all impacts of ordnance back to BLACKBURN for each item delivered/fired.

11. A Face-to-Face brief must also be accomplished with BLACKBURN at least 24 hours before the scheduled event and updated SPINS provided.

12. Additional guidance/policy may be posted on this topic in the future since this is a new training event at Lejeune.

(9) The N-1/BT-3 Impact Area accommodates firing from H-1, G-5, and G-7 ranges into the Browns Island target area and E-1 out to sea. The grid coordinates delineated below are only for the land mass danger areas. The range extends approximately 11,000 meters seaward from Browns Island target area as depicted by the Fleet Operating Area Cherry Point, Cape Hatteras to Cape Fear chart number 11525.

<b>The N-1/BT-3 Primary Impact Area</b>
18S TD 9340-2959
18S TD 9411-3031
18S TD 9432-3126
18S TD 9533-3231
18S TD 9544-3421
18S TD 9579-3452
18S TD 9625-3466
18S TD 9739-3436
18S TD 9769-3466
18S TD 9900-3251
18S UD 0200-3150
18S UD 0650-2400
18S TD 9300-1800

PIA: Primary Impact Area: defined on the CLNC Special Map (MIM MAP) as a Blackline within the N-1/BT-3 Impact Area.

5. G-10 Impact Area

**IMPACT AREA:** G-10

**DESCRIPTION:** Bomb and Target Range

**PRIMARY RANGE USE:** Weapons Familiarization Range

**ALTERNATE RANGE USES:**

1. Air to Ground Weapons
2. Helicopter and tiltrotor Gunnery Range
3. Mortar Range
4. Field Artillery Indirect Fire Range

5. Infantry Weapons Range
6. Machinegun Range
7. Guided Missile Range
8. Naval Gunfire Range
9. Convoy Range
10. Tank Range
11. Rocket Range

**STATUS:** Active

**LOCATION:** Center of Camp Lejeune East of New River

**PRIMARY DIRECTION OF FIRE:** None

**WEAPONS ACCOMMODATED:** All pistols  
All Shotguns  
All Rifles  
All Sniper Rifles  
All Machineguns  
M242 Chain Gun  
60/81/120mm Mortar  
Field Artillery  
Aircraft Weapons  
Javelin M98A1  
SMAW MK-153  
AT-4/M72A7 LAW  
TOW II Missile  
Helicopter and Tiltrotor Weapons Systems  
Naval Gunfire  
M1A1 Tank (G-29B Only)  
M203/M23/MK-19

**AMMUNITION AUTHORIZED:** All Pistol DODICs  
All Shotguns DODICs  
All Rifles DODICs  
All Sniper Rifle DODICs (DODIC A606 by SRR)  
All Machineguns DODICs  
All DODICs 60/81/120mm Mortars  
20mm (TP)  
25mm (TP-T and APDS-T)  
30mm (TP-T)  
40mm HE/HEDP/TP  
2.75 inch Rocket;  
TP/HE/WP/Illum/Flechette  
105mm (including AC-130)  
155mm HE, WP, Illum, Smoke  
MK76 Practice Bomb  
BDU 33  
BDU 45

Laser Guided Training Round (LGTR)  
MK80 Series Bombs (Inert)  
M781 Practice Round or M576  
5 inch HE/ILLUM (Naval Gunfire)  
120mm TP (Tank)  
BGM-71 TOW IIB  
40mm grenades (no CS)

**TARGETS/SIMULATORS/DEVICES:** Hard Targets: 104 (see RCD website for list)

**FACILITIES (Number of each):** None

**UTILITIES AVAILABLE:** Electricity: No  
Lights: No  
Water System: No

**INSTALLED COMMUNICATIONS:** None

**AREA SUITABILITY** Battalion

a. Range Use Restrictions/Comments

(1) Types I, II, and III CAS events are authorized in this facility per the current edition of the JCAS manual. All restrictions must be read back to terminal controller by aircrew from each attacking aircraft. All attacks must comply with individual target set restrictions listed in the following paragraphs below. Any new WDZ profiles requires a Face-to-Face brief with the RSS using the WDZ program to receive approval. As profiles are approved, a list will be maintained for future training events. Contact Range Control for the current approved list. Additionally, for Type II and Type III operations on Camp Lejeune, each attack requires inbound with a heading call (in degrees). A WDZ profile must be accomplished before hand of the scheduled event.

(a) Special Range Requests for CAS Types II and III attack profiles with ordnance combinations for target sets will be submitted to Range Control for approval.

(b) For Type II and III attacks, FAC/JTAC shall confirm aircraft's navigation system accuracy with aircrew prior to commencing the attack.

(2) HE filled bombs (All) from aircraft are not authorized in the G-10 Impact Area.

(3) OPs 2, 3, 5, and 14 serve G-10.

(4) Unit must provide portable toilets.

(5) Maneuver or walking downrange to place targets into the impact area is not authorized.

(6) Night Use is authorized if properly scheduled.

(7) LASERS are authorized in accordance with Chapter 7 of this Order, if properly scheduled, and the Laser Range Certification/Survey is current (provided by Range Control upon checkout of a laser range). RLSO is required.

(8) RCW Habitat; no vehicle traffic or training in specifically designated areas.

(9) 2.75 inch illumination rockets must deploy, function, and have spent motor land within the G-10 impact area. FACS, JTACs, and aircrew must take wind speed and direction into account to keep all rocket components within the G-10 impact area.

b. Other Considerations. Parachute Ops (free fall only) within five nm of any range shuts down that range.

c. Special Instructions. See Appendix I. Personnel Requirements for Combined Arms/TACP Shoot.

(1) Fixed-Wing Aircraft

(a) Fixed Wing Aircraft must use Control Points/IPs and run-in headings as contained in Chapter 4 of this Order.

(b) Authorized ammunition is MK76, BDU33, BDU45, and MK80 series inert bombs, LGTR, 2.75 inch rockets, 20mm, 25mm, 30mm delivered at 20 degrees or greater dive angle, and AC-130 20mm, 30mm, 40mm, and 105mm. Ammunition (TP only) for the UCAS Facility is listed separately in paragraph 6. UCAS is scheduled separately from G-10.

(c) The minimum altitude for fixed-wing operations inside the restricted area is 3000' AGL (coordinating altitude). Fixed wing operations below the 3000' AGL coordinating altitude (i.e. strafing runs/low altitude ingress) are authorized when deconflicted from non-participating rotary-wing/tiltrotary-wing operations with lateral and altitude separation. Fixed-wing shall not overfly occupied BPs and HAs.

(d) The master arm shall not be "armed" until sights are on the target and "cleared hot" is given by the Terminal Controller.

(e) Fixed-wing aircraft must be familiar with the fixed-wing Procedural Line procedures (see Chapter 4). The arming switch is placed in the "ARMED POSITION" and the weapon system (ordnance) inadvertently separates from the aircraft the effects must be contained within the range boundary only.

(2) Helicopter and Tiltrotor Operations

(a) Authorized ammunition: 20mm, 7.62mm, .50 cal, 2.75-inch rockets, and Airborne BGM-71 TOW IIB missiles.

(b) When firing 7.62mm, .50 cal, or 20mm ammunition from BP Newt, the "GD" and "GF" TAs must be closed. Road guard positions are 18S TD 902-323, TD 909-318, TD 921-317, and TD 938-329.

(c) Airborne BGM-71 TOW IIA/B missiles shall be fired from BP Wolf only. When firing the missile from BP Wolf, Lyman Road shall be closed. This has a very limited WZ assigned.

(d) Ammunition may be delivered from within the BPs using Hover Holds, Running Fire, or Diving Fire.

(e) All fires shall be delivered from inside BPs Newt, Eel, Sidewinder, and Wolf unless transitioning to BP Ox operations.

(f) Aircraft/launcher attitude shall not exceed 0 degrees pitch relative to horizon for 2.75 inch rocket delivery.

(g) The master arm shall not be "armed" until sights are on the target and "cleared hot" is given by the Terminal Controller. At no time shall the aircraft be armed if aircraft/launcher attitude (delivery angle) is greater than 0 degrees pitch relative to the horizon. The master arm shall be secured at the cease-fire lines for each BP prior to the pull-off. When firing from BP Ox, the aircraft/launcher attitude (delivery angle) shall be at least negative 20 degrees pitch relative to horizon.

(h) When rotary-wing aircraft are operating within the Restricted Airspace, HA and BP altitude is 2000 ft. AGL and below unless FAC/JTAC dictates an alternate altitude as approved through BLACKBURN. Rotary/Fixed-Wing coordinating altitude shall be 3000 ft. AGL.

(i) Helicopter and tiltrotor routing/deconfliction. The G-10 impact area is surrounded by Sneads Ferry Road to the west, Lyman Road to the north, and Highway 172 to the east and south. Whenever transiting between the G-10 holding areas and battle positions, helicopter, and tiltrotor aircraft operating at G-10 shall fly over this road network (surface to 500 feet AGL). Clockwise traffic shall be at 300 feet AGL. Counter-clockwise traffic shall be 500 feet AGL.

1. Aircraft shall not fly over the MCB CAMLEJ ASP (18S TD 885-355) when transiting along Sneads Ferry road.

2. Aircraft shall coordinate their transit along the G-10 road network with the FAC/Air Control Agency to ensure deconfliction with other aircraft operating at G-10. All aircraft are responsible to see and avoid other aircraft.

3. Helicopter and Tiltrotor Holding Areas (HAs)

HA	Location (18S TD)	Supports BP
Emily	GE TA and LZ Crane	Eel
Nancy	900-370, 882-370, 880-374, 880-390, 883-390, 900-384	Newt
Sandy	GI TA and LZ Gull	Sidewinder
Wendy	Two km by two km centered on 860-350	Wolf

Figure B-1.--Holding Areas

(a) HA Emily. Area dimensions: "GE" TA including LZ Crane; surface to 2000 feet AGL.

1. Holding area for BP Eel.

2. The attack/egress route connecting Holding Area Emily to EEL shall run from the Lyman Road/Hwy 172 intersection (18S TD 956-369) direct to MP-5.

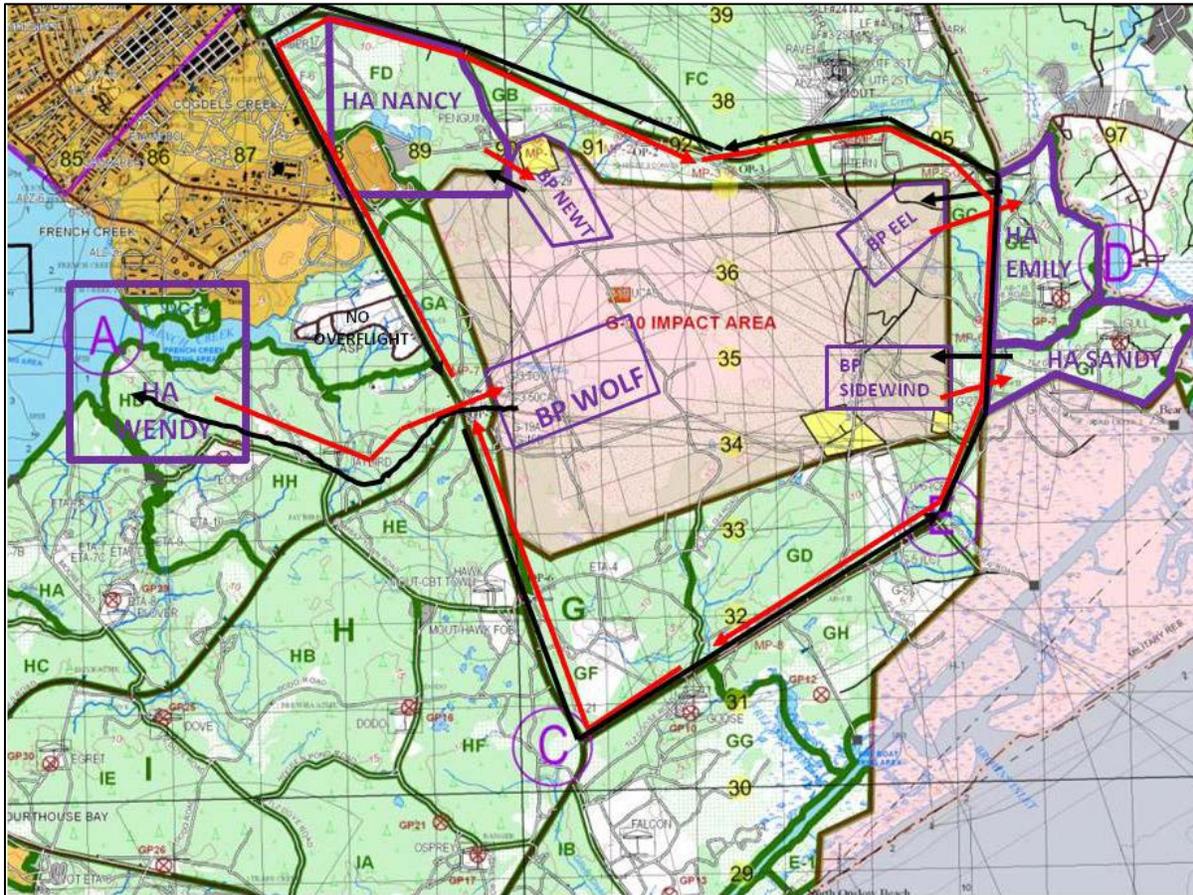


Figure B-2.--Helicopter and Tiltrotor Routing, HAs, and BPs

3. Ingress and egress altitudes along the attack route shall be surface to 2000 feet AGL.

4. LZ Crane shall be closed to helicopter and tiltrotor traffic.

(b) HA Nancy. Area dimensions: WGS-84 18S TD 900-370, 882-370, 880-374, 880-390, 883-390, 900-384; surface to 2000 feet AGL.

1. Holding area for BP Newt.

2. LZ Penguin shall serve as the attack/egress route connecting holding area Nancy to Newt (G-29A/B).

3. Ingress and egress altitudes along the attack route shall be surface to 2000 feet AGL.

4. TLZs Penguin, Tern, Gull, Crane, and Goose shall be closed to helicopter and tiltrotor traffic.

(c) HA Sandy. Area dimensions: "GI" TA including LZ Gull; surface to 2000 feet AGL.

1. Holding area for BP Sidewinder.

2. The attack/egress route connecting Holding Area Sandy to Sidewinder runs from the northwest corner of the GI TA (18S TD 954-350) along the 35 gridline to Sidewinder.

3. Ingress and egress altitudes along the attack route shall be surface to 2000 feet AGL.

4. LZs Gull and Crane shall be closed to helicopter and tiltrotor traffic.

(d) HA Wendy. Area dimensions: Two km x Two km area, centered on WGS-84 18S TD 860-350; surface to 2000.

1. Holding Area for BP Wolf. French Creek shall be the attack route connecting HA Wendy to BP Wolf (OP-5). Marines Road, Weil Point Road shall be the egress route connecting BP Wolf to HA Wendy.

2. Ingress and egress altitudes along the attack route shall be surface to 2000 feet AGL.

3. Aircraft shall not fly over the MCB CAMLEJ ASP (18S TD 885355) at altitudes below 4000 ft. MSL.

4. LZ Jaybird shall be closed to helicopter and tiltrotor traffic.

(e) Temporary Holding Areas as approved by the Base RSS. Approved temporary Holding Areas shall be included in SPINS and discussed with BLACKBURN during Face-to-Face brief.

(4) Helicopter, Tiltrotor, and AC-130 Battle Positions (BPs)

BP	Location (18S TD)	Final ATK Cone/Heading	Start Fire Line (18S TD)	Cease Fire Line 18S TD)
Eel	951-370, 951-366, 940-362, 937-366, 947-370	Inert: 245-260 mag HE: 250 mag from MP-5	MP-5	940-362, 937-366
Newt	901-374, 902-375, 904-376, 906-375, 913-364, 907-364	Inert: 150-165 mag HE: 160 mag from G-29A/B	G-29 berm	907-364, 913-364

Sidewinder	940-353, 950-358, 950-347, 940-347	Inert: 265-285 mag HE: 275-280 mag	95 grid line	940-353, 940-347
Wolf	894-347, 907-352, 909-347, 896-342	Inert: 080-090 mag HE: 085 mag from OP-5	G-3 berm	907-352, 909-374
Ox	4 km diameter circle centered on 923-353, circular pattern for AC-130 is bordered by Lyman Rd, Hwy 172, and Sneads Ferry Rd.	Inert and HE: from 040 to 120 mag from 180 to 300 mag	In cone and cleared HOT by terminal controller	Circular pattern when exiting cone, diving fire at center of four km diameter circle.

Figure B-3.--Battle Positions

(a) BP Eel. Area dimensions: 0.5km width, 1.3km length, surface to 2000 feet AGL. WGS-84 18S TD 951-370, 951-366, 940-362, 937-366, 947-370.

1. Final Attack Cone (inert ordnance): 245-260 degrees magnetic from MP-5. Additional five degrees can be added once confirmed using the WDZ program 240-260 degrees magnetic.

2. Final Attack Heading (high explosive ordnance): 250 degrees magnetic from MP-5. Additional five degrees can be added once confirmed using the WDZ program 245-255 degrees magnetic.

3. Authorized ammunition is 20 mm, 7.62 mm, .50 cal, and 2.75 inch rockets.

4. Ammunition may be delivered from within the G-10 Impact Area using Hover Holds, Running Fire, or Diving Fire.

5. Hover Hold. Maximum hover altitude is 300 feet AGL. Aircraft must be forward of MP-5. The cease fire Line for 2.75 inch rockets, 7.62mm, .50 cal, and 20mm gun is defined by the Pond at 18S TD 940-362 then NW to 18S TD 937-366. Aircraft/launcher attitude shall not exceed 0 degrees pitch relative to the horizon for 2.75 inch TP rocket delivery. 7.62mm and 20mm TP guns may be fired from 245-260 degrees magnetic using gunner-controlled off-axis guns or crew served weapons. Fixed forward or Helmet Sight System (HSS) 20mm guns from hover hold are not authorized.

6. Running/Diving Fire. The start fire line is defined by MP-5; the cease fire line for 2.75 inch rockets, 7.62mm and 20mm gun is defined by the pond at 18S TD 940-362 then NW to 18S TD 937-366. Aircraft/launcher attitude shall not exceed 0 Degrees pitch relative to the horizon for 2.75 inch TP rocket delivery. 7.62mm, .50 cal, and 20mm TP guns may be fired fixed forward or from 245-260 degrees magnetic using gunner-controlled off-axis guns or crew served weapons. Helmet Sight System (HSS) 20mm gun is not authorized.

7. Coordinating Instructions. Clearance to depart the area is required from the terminal controller/BLACKBURN. Units may not occupy MP-5/GP-6 or G-3 when Eel is active. GP-7 shall not fire when BP Eel/HA Emily are active. Aircraft may not occupy BP Wolf when BP Eel is active. LZ Crane shall be closed to helicopter and tiltrotor traffic when BP Eel/HA Emily are active.

(b) BP Newt. Area dimensions: 0.5 km width, 1.7 km length, surface to 2000 feet AGL. WGS-84 18S TD 901-374, 902-375, 904-376, 906-375, 913-364, 907-364:

1. Final Attack Cone (inert ordnance): 150-165 degrees magnetic from the G-29 berm. Additional five degrees can be added once confirmed using the WDZ program 145-170 degrees magnetic.

2. Final Attack Heading (high explosive ordnance) 160 degrees magnetic from the G-29A/B berm. Additional five degrees can be added once confirmed using the WDZ program 155-165 degrees magnetic.

3. Authorized ammunition 20mm, 7.62mm, .50 cal, and 2.75 inch rockets.

4. The "GD" and "GF" TAs may have to be closed in order to fire 7.62mm, .50 cal, or 20mm ammunition from BP Newt.

5. To fire 20mm, .50 cal or 7.62mm from BP Newt, road guards shall be placed at WGS-84 18S TD 902-323, 909-318, 921-317, 938-329. Ammunition may be delivered from within the G-10 Impact Area using hover holds, running fire, or diving fire depending on the angle of fire.

6. Hover Hold. Maximum hover altitude is 300 feet AGL. Aircraft must be forward of the G-29B range berm. The cease-fire line for 2.75 inch rockets, 7.62mm, .50 cal, and 20mm guns is defined by the east/west dirt road (WGS-84 18S TD 907-364 to 913364). Aircraft/Launcher attitude shall not exceed 0 degrees pitch relative to the horizon for 2.75 inch rocket delivery. 7.62mm, .50 cal, and

20mm guns may be fired from 150-165 degrees magnetic using gunner-controlled off-axis gun or crew served weapons. Fixed forward or Helmet Sight System (HSS) 20mm guns from hover hold are not authorized.

7. Running/Diving Fire. The start fire line is the old G-29A/B berm. The cease-fire line for 2.75 inch rockets, 7.62mm, .50 cal, and 20mm guns is defined by the east/west dirt road (WGS-84 18S TD 907-364 to 913-364). Aircraft/launcher attitude shall not exceed 0 degrees pitch relative to the horizon for 2.75 inch TP rocket delivery. 7.62mm, .50 cal, and 20mm TP guns may be fired fixed forward or from 150-165 degrees magnetic using gunner-controlled off-axis gun or crew served weapons. Helmet Sight System (HSS) 20mm guns are not authorized.

8. Coordinating Instructions. Clearance to depart the area is required from the terminal controller/BLACKBURN. Units may not occupy the G-29A/B when BP Newt is active. MP-1 shall not fire when BP Newt/HA Nancy are active. LZ Penguin shall be closed to helicopter and tiltrotor traffic when BP Newt/HA Nancy are active. Maximum altitude shall be 2000 feet AGL. The "GD" and "GF" TAs may be closed in order to fire 7.62mm, .50 cal, or 20mm ammunition from BP Newt.

(c) BP Sidewinder. Area dimensions: 0.5km width, one km length, surface to 2000 feet AGL. WGS-84 18S TD 940-353, 18S TD 950-353, 18S TD 950-347, 18S TD 940-347.

1. Final Attack Cone (inert ordnance): 265-285 degrees magnetic. Additional five degrees can be added once confirmed using the WZD program 260-290 degrees magnetic.

2. Final Attack Cone (high explosive ordnance): 275-280 degrees magnetic. Additional five degrees can be added once confirmed using the WZD program 270-285 degrees magnetic.

3. Authorized ammunition is 20mm, 7.62mm, .50 cal, and 2.75 inch rockets. Ammunition may be delivered from within the G-10 Impact Area using hover holds, running fire, or diving fire.

4. Hover Hold. Maximum hover altitude is 300 feet AGL. The cease-fire line for 2.75-inch rockets, 7.62mm, .50 cal, and 20mm gun is defined by the dirt road (Mossy Pond Rd.) 18S TD 940-353 to 18S TD 940-347. Aircraft/launcher attitude shall not exceed 0 degrees pitch relative to the horizon for 2.75 inch rocket delivery. 7.62mm, .50 cal, and 20mm guns may be fired from 265-285 degrees magnetic using gunner-controlled off-axis guns or crew served weapons. Fixed forward or Helmet Sight System (HSS) 20mm guns from hover hold are not authorized.

5. Running/Diving Fire. The 95-grid line (500 meters west of Hwy 172) defines the start fire line. Mossy Pond Rd, TD 940-353 to TD 940-347, defines the cease-fire line for 2.75-inch rockets, 7.62mm, .50 cal, and 20mm gun. Aircraft/launcher attitude shall not exceed 0 degrees pitch relative to the horizon for 2.75 inch TP rocket delivery. 7.62mm, .50 cal, and 20mm TP guns may be fired fixed forward or from 265-285 degrees magnetic using gunner-controlled off-axis guns or crew served weapons. Helmet Sight System (HSS) 20mm guns are not authorized.

6. Coordinating Instructions. Clearance to depart the area is required from the terminal controller/BLACKBURN. Units may not occupy MP-7 or G-3 when BP Sidewinder is active. MP-6/GP-8, GP-7, and GP-9 shall not fire when BP Sidewinder/HA Sandy are active. Aircraft may not occupy BP Wolf when Sidewinder is active. LZ Gull shall be closed to helicopter and tiltrotor traffic when BP Sidewinder/HA Sandy are active. Maximum altitude shall be 500 feet AGL when fixed-wing aircraft are on station.

(d) BP Wolf. Area dimensions: 0.5 km width, one km length, surface to 2000 feet AGL. WGS-84 18s TD 894-347, 907-352, 909-347, 896-342.

1. Final Attack Cone (inert ordnance): 080-090 degrees magnetic from OP-5. Additional five degrees can be added once confirmed using the WDZ program 075 to 095 degrees magnetic.

2. Final Attack Heading (High Explosive Ordnance): 085 degrees magnetic from OP-5. Additional five degrees can be added once confirmed using the WDZ program 080 to 090 degrees magnetic.

3. Authorized Ammunition: 7.62mm, .50 cal, 20mm, 2.75 inch rockets and airborne BGM-71 TOW IIB missiles. Ammunition may be delivered from within the G-10 Impact Area using hover holds, running fire or diving fire. All fires shall be delivered from inside the G-10 Buffer Area. At no time will live ordnance be delivered outside the G-10 Buffer/Impact Area.

4. Hover Hold. Maximum hover altitude is 300 feet AGL. Aircraft must be forward of the G-3 berm. The cease-fire line for all ordnance is defined by the eastern boundary (18S TD 907-352 to 18S TD 909-347). Aircraft/launcher attitude shall not exceed 0 degrees pitch relative to the horizon for 2.75 inch rocket delivery. 7.62mm, .50 cal, and 20mm guns may be fired from 080-090 degrees magnetic using gunner-controlled off-axis guns or crew served weapons. Fixed forward or HSS 20mm guns from hover hold are not authorized.

5. Running/Diving Fire. The Start-Fire Line is the G-3 berm. The Cease-Fire Line for all ordnance is defined by the eastern boundary (18S TD 907-352 to 18S TD 909-347).

Aircraft/launcher attitude shall not exceed 0 degrees pitch relative to the horizon for 2.75 inch TP rocket delivery. TOW running/diving fire is not authorized. 7.62mm, .50 cal, and 20mm TP guns may be fired fixed forward or from 080-090 degrees magnetic using gunner-controlled off-axis guns or crew served weapons. Helmet Sight System (HSS) 20mm guns are not authorized.

6. Coordinating Instructions. Clearance to depart the area is required from the terminal controller/BLACKBURN. Units may not occupy MP-3, OP-3, MP-7, G-3, or MP-5/GP-6 when BP Wolf is active. Aircraft may not occupy BPs Eel or Sidewinder when BP Wolf is active. LZ Jaybird shall be closed to helicopter and tiltrotor traffic when BP Wolf/HA Wendy are active. Maximum altitude shall be 2000 feet AGL.

(e) BP Ox. Area dimensions: Circular overhead pattern four km diameter centered on 18S TD 923-353, 300 ft. AGL to 2000 ft. AGL. AC-130 pattern is circular bordered by Lyman Road, Hwy 172, and Sneads Ferry Road staying inside road network.

1. Final Attack Cones (inert and high explosive): 040-120 and 180-300 degrees magnetic. Authorized ammunition is 7.62mm, .50 cal, 20mm, 2.75 inch rockets, 30mm 40mm and 105mm (AC-130). Ammunition shall be delivered within the G-10 impact area from an overhead pattern using diving fire only. Aircraft shall not fly over the field ammo storage area (18s TD 885-355) at altitudes less than 4000 ft. MSL.

2. Diving Fire. 2.75 inch TP rocket, 7.62mm, .50 cal, and 20mm TP delivery shall be in a negative (-) 10 degree (or greater) weapon delivery angle relative to the horizon. .50 Cal weapon delivery angle must be at least 25 degrees or greater below the horizon due to its greater SDZ.

3. Master arm shall not be "ARMED" until sights are on the target and a "CLEARED HOT" is given by the terminal controller. At no time shall the aircraft be armed until aircraft/launcher attitude (delivery angle) is at least negative (-) 20 degrees pitch relative to the horizon. Master arm shall be secured at the cease-fire line prior to pull-off.

4. Temporary Battle Positions are approved by the Base RSS. Approved temporary Battle Positions shall be included in SPINS and discussed with BLACKBURN during Face to Face brief.

(f) Coordinating Instructions. Clearance to depart area is required from the terminal controller/BLACKBURN. Concurrent fixed-wing operations into G-10 are prohibited while BP Ox is active.

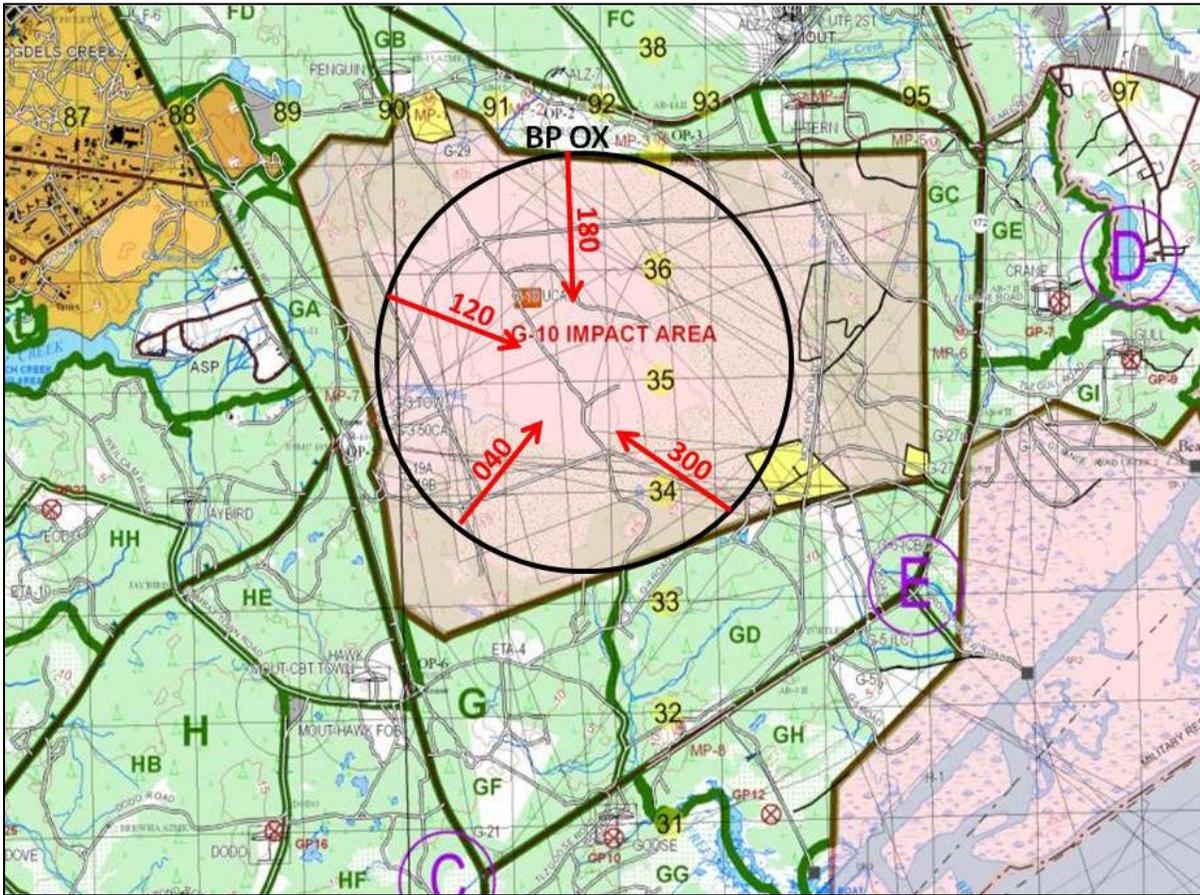


Figure B-4.--Battle Position Ox

**G-10 Impact Area**

<b>Primary Impact Area</b>	<b>155 PDA</b>
18S TD 8908-3689	18S TD 8992-3654
18S TD 8945-3726	18S TD 9201-3633
18S TD 8999-3727	18S TD 9439-3633
18S TD 9009-3742	18S TD 9435-3462
18S TD 9045-3756	18S TD 9353-3448
18S TD 9081-3747	18S TD 9080-3360
18S TD 9110-3711	18S TD 9040-3527
18S TD 9209-3701	
18S TD 9508-3701	
18S TD 9503-3406	
18S TD 9370-3384	
18S TD 9046-3277	
18S TD 9023-3301	
18S TD 8977-3501	

PIA: Primary Impact Area; defined on CLNC Special as the red area, no targets outside this area will be engaged with any weapon system. No access to this area is authorized without EOD escort.

155 PDA: Primary Danger Area; not currently defined on the CLNC Special. Targets outside this area will not be engaged by 155 mm howitzers. Artillery safety computations with the ARSS will be computed from this area.

6. K-2 Impact Area

**IMPACT AREA:** K-2

**DESCRIPTION:** Bomb and Target Range

**PRIMARY RANGE USE:** Training Range

**ALTERNATE RANGE USES:**

1. Infantry Weapons Range
2. Mortar Range
3. Artillery (SRR Only)

**STATUS:** Active

**LOCATION:** Center of Camp Lejeune West of New River (Verona Loop Training Areas)

**PRIMARY DIRECTION OF FIRE:**

**WEAPONS ACCOMMODATED:**

All military pistols  
All 12 gauge Shotguns  
All Rifles  
M249 SAW/M27 IAR  
5.56 Machineguns ONLY  
60/81/120mm Mortar  
Aircraft Weapons  
MK153 83mm SMAW  
AT-4/M72A7 LAW  
Artillery 155mm/105mm

**AMMUNITION AUTHORIZED:**

All Pistol DODICs  
All Shotgun DODICs  
All Rifle DODICs  
All 5.56 Machinegun DODICs  
60/81/120mm Mortars (All DODICs)  
40mm HE/HEDP/TP  
2.75 inch Rocket (TP only)  
MK76 Practice Bomb  
MK80 Series Bombs (Inert)  
M781 Practice Round or M576  
155mm HE, WP, Illum,

**TARGETS/SIMULATORS/DEVICES:** Hard Targets: 25

**FACILITIES(Number of each):** None

**UTILITIES AVAILABLE:**           Electricity: No  
  Lights: No  
  Water System: No

**INSTALLED COMMUNICATIONS:**   Telephones located at ranges

**AREA SUITABILITY:**            Company/Platoon

a. Range Use Restrictions/Comments

- (1) Several range towers serve the K-2 impact area.
- (2) Maneuver is not authorized down range into the K-2 impact area.
- (3) Night use is authorized if properly scheduled.
- (4) Lasers are authorized in accordance with Chapter 7 of this Order and the Laser Range Certification/Survey (provided by Range Control upon checkout of laser ranges). RLSO is required.
- (5) RCW habitat; no vehicle traffic or training in specifically designated areas. This range will close portions of New River when firing artillery and either Navy Boat Crew support or unit observers will be required.
- (6) Field artillery is authorized for the K-2 on a case-by-case basis. A SRR letter, sent via the chain of command, requesting to fire into K-2 with artillery must be sent to the CG MCIEAST-MCB CAMLEJ (G-3/5 RCD), 30 working days prior to date of the event.

b. Other Considerations: None

c. Special Instructions

(1) General. Be familiar with the contents of Chapter 5 of this Order and this Appendix.

(2) Air Operations

(a) Fixed-wing aircraft must use Control Points/IPs and run-in headings as contained in Chapter 4 of this Order. Authorized ammunition is MK76 and MK80 series inert bombs.

(b) Authorized ammunition for helicopter and tiltrotor aircraft is 7.62mm with a SRR and WDZ approval.

(c) Squadrons submit request for the range airspace (K-2 Helo, K-2 Fixed, K-2 Helo/Fixed, K-2 Laser) and an OP (OP-12) in RFMSS up to 90 days prior but NLT 48 hours prior to the event. TAs must be scheduled and approved in RFMSS before submitting a SRR for air operations.

(d) Submit SRR (Chapter 3 of this Order) e-mail to RSS.

**K-2 Impact Area**

<b>Primary Impact Area</b>	<b>155 PDA</b>
18S TD 7761-3557	18S TD 7831-3488
18S TD 7792-3562	18S TD 7890-3513
18S TD 7842-3560	18S TD 7921-3548
18S TD 7860-3573	18S TD 8121-3548
18S TD 7868-3599	18S TD 8206-3493
18S TD 7866-3629	18S TD 8188-3394
18S TD 7901-3629	18S TD 8025-3285
18S TD 7944-3617	18S TD 7818-3420
18S TD 8038-3629	
18S TD 8192-3579	
18S TD 8183-3582	
18S TD 8200-3575	
18S TD 8236-3571	
18S TD 8257-3558	
18S TD 8282-3530	
18S TD 8250-3353	
18S TD 8027-3204	
18S TD 7744-3390	
18S TD 7770-3539	

PIA: Primary Impact Area; designated on the CAMLEJ Military Information Map (MIM) as the red area, no target outside this area will be engaged with any weapon system. No access authorized without EOD escort/support.

155 PDA: Primary Danger Area; not currently defined on the CAMLEJ MIM. Targets outside this area will not be engaged by 155 mm howitzers. Artillery safety computations with the ARSS will be computed and Special Range Request.

APPENDIX C

OPERATIONAL RISK MANAGEMENT

1. Purpose. To establish ORM procedures in accordance with references (f), (bm), and (bn) and as an integral part of non-live-fire training, live-fire training, naval operations, other training and planning as directed at all levels of command in order to optimize operational capability, readiness, and enhance mission accomplishment. All commanders will apply ORM procedures and develop safety control measures for all phases of training and must complete an ORM Worksheet that is signed, reviewed, and onsite/on the range for the training event.

2. ORM is a decision making process that enhances operational capability and risk reduction. Risk management and risk assessment are formal, essential tools of operational planning. Sound decision-making requires the use of these tools, both in battle and training. It is a method for identifying hazards, assessing risks, and implementing controls to reduce the risks associated with any and all operations or training events. Units are required to conduct ORM for all high risk training.

3. These instructions apply to all Marine Corps units and other service units that use Camp Lejeune live-fire ranges, non-live-fire training in all TAs, and other related training facilities.

4. Basic Principles of ORM

- a. Accept risk when the benefits outweigh the cost.
- b. Accept no unnecessary risk.
- c. Anticipate and manage risk by planning.
- d. Make risk decisions at the appropriate command level.

5. Unit commanders will:

a. Implement the ORM process within their command when conducting live-fire, non-live-fire, conducting training in training facilities and all other phases of training aboard Camp Lejeune.

b. Incorporate identified hazards, risk assessments, and controls into written operation orders and plans for live-fire events.

c. Conduct a thorough risk assessment for all new or complex evolutions (Live-Fire Movement/Maneuver Events/High Risk Training Events) and define acceptable risk and possible contingencies for the evolution.

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d. Address the ORM process in safety, training, and lessons learned reports to the RSS as directed.

e. Inform the chain of command as to what hazard cannot be controlled or mitigated at their command level.

f. Submit to Range Control a signed/reviewed ORM worksheet with each formal letter for Special Range Request/Jane and John Wayne Day/Warrior Night/Mess Night/A Day in Their Boots Day or any other letters being submitted to Range Control. All pages of the ORM worksheet must be signed by unit CO or "By direction."

g. Review references (f), (bm), and (bn) for additional information/guidance on ORM.

6. Sources of Cause Factors from Accidents and Injuries. Individual 48 percent, Leader 18 percent, Standards 18 percent, Training Standards percent, and Support 8 percent.

**HAZARD PROBABILITY**

DEGREE OF PROBABILITY	DESCRIPTION
Likely (A)	Likely to occur immediately or within a short period of time. Expected to occur frequently to an individual item or person or continuously to a fleet inventory, or group.
Probably (B)	Probability will occur in time. Expected to occur several times to an individual item or person or frequently to a fleet, inventory, or group.
May (C)	May occur in time. Can reasonably be expected to occur some time to an individual item or person or several times to a fleet, inventory, or group.
Unlikely (D)	Unlikely to occur.

**HAZARD SEVERITY**

CATEGORY	DEGREE OF SEVERITY
CATEGORY I	The hazard may cause death, loss of facility/asset, or result in grave damage to national interests.
CATEGORY II	The hazard may cause severe injury, illness, property damage, damage to national or service interests, or degradation to efficient use of assets.

CATEGORY III	The hazard may cause minor injury, illness, property damage, damage to national, service or command interests, or degradation to efficient use of assets.
CATEGORY IV	The hazard presents a minimal threat to personnel safety or health, property, national, service or command interests, or efficient use of assets.

RISK ASSESSMENT MATRIX					
PROBABILITY					
S E V E R I T Y	CATEGORY	A	B	C	D
I	I	1	1	2	3
II	II	1	2	3	4
III	III	2	3	4	5
IV	IV	3	4	5	5
RISK ASSESSMENT CODE (RAC)					
Number	Corresponding Level of Risk				
1	Critical				
2	Serious				
3	Moderate				
4	Minor				
5	Negligible				

NOTE: See next page. This is to allow the removal of document for reproduction as needed. This is only an example of the form. Units are authorized other formats for the ORM worksheet. All pages of the ORM worksheet must be signed by the person that prepared the worksheet and the person that reviewed it. Risk Decision Authority Signature/Rank/Unit. Do not accept any unnecessary risk and ensure risk decisions are made at the appropriate command level. Overall risk after controls are implemented and residual risk has been identified. Low (L), Moderate (M), High (H), Extremely High (EH).

<b>A. Mission or Task</b>	<b>B. Date/Time Group</b> Begin: End:		<b>C. Date Prepared:</b>		
<b>D. Prepared By:</b>					
<b>E. Task</b>	<b>F. Identify Hazards</b>	<b>G. Assess Hazards</b>	<b>H. Develop Controls</b>	<b>I. Determine Residual Risk</b>	<b>J. Implement Controls ("How To")</b>
<p><b>K. Determine overall mission/task risk level after controls are implemented (circle one)</b>          LOW(L)      MODERATE(M)      HIGH(H)      EXTREMELY HIGH(E)</p>					
<b>L. SUPERVISE AND EVALUATE</b>					

A-D	Self explanatory
E	Identify task relating to the Mission or Task in Block A
F	<u>Identify Hazards</u> - Identify hazards by reviewing METT-T factors for the Mission or Tasks. Additional factors include historical lessons learned, experience, judgment, equipment/weapon characteristics and warnings, and environmental considerations.
G	<u>Assess Hazards</u> - Assessment includes historical lessons learned, intuitive analyses, experience, judgment, equipment/weapon characteristics and warnings, and environmental considerations. Determine initial risk for each hazard by applying risk assessment matrix. Enter the risk level for each hazard into the worksheet.
H	<u>Develop Controls</u> - Develop one or more controls for each hazard that will either eliminate the hazard or reduce the risk (probability and/or severity) of a hazardous incident. Specify who, what, where, why, when, and how for each control. Enter controls into the worksheet.
I	<u>Determine Residual Risk</u> - Determine the residual risk for each hazard by applying the risk assessment matrix. Enter the residual risk level for each hazard into the worksheet.
J	<u>Implement Controls</u> - Decide how each control will be put into effect or communicated to the personnel who will make it happen (written or verbal instruction: tactical, safety, garrison, SOPs, rehearsals, battle drills). Enter controls into the worksheet.
K	<u>Determine Overall Mission/Task Risk Level</u> - Select the highest residual risk level and circle it. This becomes the overall mission or task risk level. The Commander decides whether the controls are sufficient to accept the level of residual risk. If the risk is too great to continue the mission or task, the commander directs development of additional controls or modifies, changes, or rejects the courses of action.
L	<u>Supervise and Evaluate</u> - The last step is not on the worksheet. Plan how each control will be monitored for implementation (continuous supervise, spot-checks, inspect, command presence, after action review) and reassess hazards as the situation changes. Determine if the controls worked and if they can be improved. Pass on the lessons learned.

7. Overall Mission/Task Risk Level

(1) Extremely High: Loss of ability to accomplish the mission if hazards occur during mission execution. A frequent or likely probability of catastrophic loss or frequent probability of critical loss exists.

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(2) High: Significant degradation of mission capabilities in terms of required mission standard, inability to accomplish all parts of the mission, or inability to complete the mission to standard if hazards occur during mission. Occasional to seldom probability exists of a critical loss exists. Frequent probability of marginal losses exists.

(3) Moderate: Expected degraded mission capabilities in terms of the required mission standard; will have a reduced mission capability if hazards occur during mission. An unlikely probability of catastrophic loss exists.

(4) Low: Expected losses have little or no impact on accomplishing the mission. The probability of critical loss is unlikely, while marginal loss is seldom or unlikely. The probability of a negligible loss is likely or of personal injury.

APPENDIX D

GREATER SANDY RUN AREA TRAINING COMPLEX (GSRA)

1. General

a. Background. The GSRA Training Complex is a 41,000 plus acres of training areas. It consists largely of cutover timber, pine plantations, large areas of wetlands and a pocosin swamp. Within the GSRA (southern part) is Camp Davis, a WWII Army Airfield (Camp Davis North and South Runways) and training facilities and live-fire ranges located within. The airfield consists of a road network and two runways with supporting taxiways. **NO DUD PRODUCING ORDNANCE /PYROTECHNICS/SMOKE/CS ARE AUTHORIZED IN THE GSRA TRAINING COMPLEX. All units must police and remove all trash, ammunition dunnage from the RTAs and training facilities.**

b. Location. The GSRA Training Complex is located within Onslow County. The town of Verona is located adjacent to the northeastern boundary of GSRA. Highway 17 is a common eastern boundary. Highway 17 along this boundary includes three underpasses, allowing grade-separated access from Camp Lejeune to the GSRA. Padgett, Haws Run, Dawson Cabin, and High Hill Roads make up the northern boundaries. NC Highway 50 makes up the western boundary.

c. Threatened and Endangered Species. Pocosin areas in the GSRA have long functioned as de facto wildlife refuges in coastal North Carolina as more suitable areas were developed for human habitation or use. Fauna of these areas is typical of that indigenous to the southern U.S. coastal plain. In addition to the many species of birds, fish, amphibians, and small mammals, which occur naturally within the pocosin and surrounding uplands, larger animals such as bobcats, black bear, turkeys, and white-tail deer, are present. Because the GSRA is widely used by local hunters, public safety is always a concern especially during hunting season.

d. Ranges, TAs, and Training Facilities

(1) General. The GSRA Training Complex presently contains six live-fire ranges (SR-6, SR-7, SR-8, SR-9, SR-10 and SR-11), 22 training and maneuvering areas, ten tactical landing zones, one (1) para-drop zone, and two airfield seizure facilities (AFSC North and AFSC South), one Forward Operating Base (GSRA FOB) and the Home Station Lane Training Complex (JIEDDO HSLTC/SR-12). Other ranges and training facilities are scheduled to be developed and constructed in the future and additional correspondence will be released to address those new ranges and facilities as required.

(2) Training and Maneuver Areas (listed North to South)

SA	SI	SQ
SB	SJ	SR
SC	SK	ST
SD	SL	SU
SE	SM	SV
SF	SN	SW
SG	SO	
SH	SP	

(3) Tactical Landing Zones. There are a total of twelve designated Tactical Landing Zones (TLZs) within the GSRA TA. These are distributed evenly throughout the GSRA to give complete access for various training scenarios and for medical evacuation in case of medical emergencies. An access road serves each TLZ. TLZs can be scheduled in RFMSS. If TLZs are to be used for rotary-wing external load operations or other ground training; they must be scheduled in RFMSS, signed for by ground units, and must be inspected by a Range Inspector.

(a) TLZ Buzzard is located within the SH TA and is part of the SR-9 IPBC complex in the vicinity of grid coordinates 635-350. Enter by way of SR Gate #11.

(b) TLZ Flamingo is located within the SG TA and is part of the SR-9 IPBC complex in the vicinity of grid coordinates 616-353. Enter by way of SR-Gate #11.

(c) TLZ Partridge is located within the SE TA in the vicinity of grid coordinates 647-378. Enter by way of SR-Gate #8 or #11.

(d) TLZ Snipe is located within the SD TA in the vicinity of grid coordinates 723-372. Enter by way of SR-Gate #3 (SR-7 Range).

(e) TLZ Kingfisher is located within the SM TA in the vicinity of grid coordinates 714-326. Enter by way of SR-Gate P (SR-6 Range).

(f) TLZ/Drop Zone Pheasant is located within the SV TA in the vicinity of grid coordinates 666-235. Enter by way of SR-Gate #22 or #23 (Camp Davis). Pheasant is also a parachute drop zone and the Camp Davis North Runway is next to the drop zone.

(g) TLZ Peewee is located within the SJ TA in the vicinity of grid coordinates 708-334. Enter by way of SR- Gate B (SR-6 South Range). TLZ is equipped with LZ marking lights.

(h) TLZ Pipit is located within the SF TA in the vicinity of grid coordinates 693-352. Enter by way of SR-Gate #3. TLZ is equipped with LZ marking lights.

(i) TLZ Phoenix is located within the ST TA in the vicinity of grid coordinates 648-234 and is used by helicopter training squadrons for external load training on a regular basis. Enter by way of SR-Gate #19 just off Highway 50.

(j) TLZ Duck is located within the SV TA in the vicinity of grid coordinates 657-215 and is also called Camp Davis South. Enter by way of SR-Gate #22 just off Highway 17.

(k) TLZ Swallow is located within the SV TA in the vicinity of grid coordinates 666-245 and is located just north of the Camp Davis North Runway. Enter by way of SR-gate #22 just off Highway 17 and proceed north along the taxiways.

(l) TLZ Turkey is located within the SL TA in the vicinity of grid 788-312. Enter by taking CC Road to Northbay Road.

(4) Parachute-Drop Zone. PDZ Pheasant is located in the vicinity of grid 666-235 and is 1400 meters long by 400 meters wide.

(5) Airfield Seizure Complex (AFSC North). There are five cinder block structures located at Camp Davis (Between Camp Davis North and South Runways) to provide opportunities for realistic training scenarios in assault and seizure tactics of a runway. These structures consist of two mock hangars with dummy aircraft, a mock control tower, a mock terminal building, and a mock maintenance building evenly distributed along the two airfields. The cinder block structures are only building shells containing no equipment, offices, or providing any other functional services other than their usefulness as a training device. Buildings are placed as realistically as possible including appropriate airfield safety setbacks so they will not represent a hazard to air traffic at Camp Davis. There are two (2) old A-4 and (2) F-4 aircraft located at the airfield. Units are not authorized to move these aircraft. The AFSC must be scheduled in RFMSS, signed for, and must be inspected by a Range Inspector. For more information on the AFSC North see the Range Card(s) for that site.

(a) Building SR-25 (Mock Tower) grid 662-226.

(b) Building SR-26 (Mock Hangar #1) grid 661-222.

(c) Building SR-27 (Mock Hangar #2) grid 660-222.

(d) Building SR-28 (Mock Maintenance Bldg) grid 662-226.

(e) Building SR-29 (Mock Terminal) grid 665-232.

(6) Airfield Seizure Complex (AFSC South)/Raid Facility

Buildings/Structures have the following: Internal and external stairways, external ladders, balconies, roof hatches, entrance doors, windows, internal and external lights. It also has a mock power station, fuel farm, guard towers, containers that are painted. Runway 05/23 Camp Davis South is about 100 meters away and Northwest from this site. Highway 17 is about 500 meters Southeast. See the Range Card for additional information on those sites. Note: Units using Air Components will have conflicts with PDZ Pheasant, Camp Davis North & South runways, Air Field Seizure (North), TLZ Phoenix, LTZ Duck, and TLZ Swallow. Units should refer to the Range Card for this site for additional information.

- (a) Building 1, Security Headquarters
- (b) Building 2, Passenger Terminal
- (c) Building 3, Airport Administration
- (d) Building 4, Two Aircraft Hangars with Mock-up aircraft
- (e) Building 5, Machine Shop (1)
- (f) Building 6, Machine Shop (2)
- (g) Building 7, Power Sub-Station (Two small Buildings with surround fence, mock transformers/junction boxes)
- (h) Building 9, Two Warehouses (Large gray metal Buildings)
- (i) Building 10, Office Building 1
- (j) Building 11, Office Building 2
- (k) Building 12, Office Building 3
- (l) Building 14, Factory
- (m) Building 15, Fuel Farm with surrounding fence/vehicle gate (Two small Buildings, with five fuel tanks, 10 fuel pumps, catwalk/stairs, two lights and solar panels).
- (n) Building 16, one story guard tower, with metal shades closest to Highway 17 with railroad crossing arm/gate.
- (o) Building 17N, two story guard tower (North Tower) with Solar Panels.
- (p) Building 17S, two story guard tower (South Tower).

(7) Observation Posts. There are a total of four observation posts (OPs) distributed throughout the GSRA. These consist of 125 ft. metal towers with a small-enclosed observation room at the top. They are tied into the base telephone system, and reached by access road. These OPs are not served by any utilities other than communications, power for electrical receptacles, and illumination lights. Lights are located to maximize the view of major TAs as well as other key elements, such as roads, both military and civilian. The towers are in a position to provide feedback on training performance and to spot possible unsafe situations or training conflicts before they develop into more serious situations.

(a) OP-8 is located within the SN TA in the vicinity of grid 639-355. Enter by way of SR-Gate #9 (Davis Tram Road).

(b) OP-9 is located within the SD TA in the vicinity of grid 722-373. Enter by way of SR-Gate #3 (SR-7 Range). This tower can be used for sniper live-fire on SR-7 if properly scheduled in RFMSS.

(c) OP-10 is located within the SG TA in the vicinity of grid 629-357. Enter by way of SR-Gate #11 (Rawls Road). This tower can be used for sniper live-fire on SR-9 if properly scheduled in RFMSS.

(d) OP-11 is located within the ST TA in the vicinity of grid 651-258. Enter by way of SR-Gate #18 (Wells Road Trail). Unit requesting OP-11 must coordinate with Range Control and the staff of Home Station Lane Training Complex (CIED Battle Course).

(8) Battalion Bivouac Areas

(a) There are two battalion bivouac areas (BnBiv) sited in the GSRA.

1. BnBiv #1 is mainly used for units training on Range SR-6. BnBiv #2 is mainly used for units training within the Camp Davis/SV TA. These areas will accommodate up to 800 troops.

2. BnBiv #1 is located in the vicinity of grid 709-312 (SL TA/LZ Turkey). Bivouacking is not authorized in the nearby wildlife food plot

3. BnBiv #2 is located in the vicinity of grid 677-234 near Camp Davis (SV TA).

(9) Forward Operating Base (GSRA FOB). Containers/structures with Walls/Guard Towers, billeting, command, and control rooms, logistic rooms/containers, ECP/VCP and, gates. Forward Operating Base (GSRA FOB) is not a MOUT Training Facility. It was not

designed nor does it support MOUT type training skill sets or force-on-force type training events. All units using this FOB must ensure that all tactical vehicles entering or exiting this site using extreme caution due to the high volume of civilian traffic on Highway 17. At no time will military vehicles disrupt the flow of civilian traffic on Highway 17. Helicopters are not authorized to land or fast rope personnel onto containers/structures at this FOB. Practice situational awareness at ALL times. SAFETY IS THE HIGHEST PRIORITY. Forward Operating Base (GSRA FOB) must be scheduled via RFMSS and signed for at Range Control by a SSgt/E-6 or above who possesses a CAMLEJ ROIC/RSO Card. Only those units who schedule and checked out this facility are authorized to use this FOB. Units may be required to submit a FEREIR to Base EMD as required. Never drive around a locked gate! To request access, contact Range Control.

(10) Restricted Areas

(a) Vehicle Movement. Vehicle (ALL) movement off graded gravel maintained roads in all TAs in the GSRA is not authorized. POVs are not authorized in TAs without RCD permission/issued Range Control POV passes. POVs are authorized for hunters during the hunting season with a vehicle pass that must be displayed on vehicle dashboard. Designated POV parking areas are provided by DoD permit in approved areas. Hunters may use registered off-road recreational vehicles to travel to authorized hunting areas designated by the CLEO. All vehicles must display a DoD vehicle permit per applicable Base Orders. Units shall never drive around a locked gate.

(b) Tracked Vehicles. Tracked vehicles are not authorized to travel within the interior of the GSRA unless maneuvering on a designated range or tank trails and scheduled by the unit in RFMSS. Support vehicles must use gravel/graded roads while operating in the GSRA. Off-road travel in TAs is not authorized. Traveling to and from firing ranges will be accomplished using gravel/graded roads only. Tracked vehicles are not authorized in the Camp Davis area unless approved by Range Control. Tracked vehicle are not authorized on the Camp Davis North/South Runways/Taxiways. Traveling along the outer tactical road along Highway 50 is not authorized. Tracked vehicles traveling from Verona Loop will use an underpass in accordance with tracked vehicle movement guide which will be provided by Range Control when required.

(c) Tactical Vehicles. Tactical vehicle movement is allowed, however, movement is restricted to gravel/graded roads. The GSRA is mostly wetland and is not suitable for off-road vehicles. Therefore, off-road vehicle use is not authorized. There are several bridges within the GSRA that have vehicle restrictions (weight and

width). In all cases, unit representatives shall conduct a survey/recon of routes and locations prior to training. Speed limits must be enforced, supervised, and proper road crossing procedures must be in place, enforced, and supervised by the command at all times.

(11) For additional GSRA updates/comments: Contact Range Control directly for more information.

(a) CVOT GSRA is a collection of tank trails/gravel roads within the following Training Areas SP, SQ, SR, SU, SW, ST, and SV that must be scheduled in RFMSS as CVOT GSRA which includes six (6) standard used/controlled check points. Range Control will provide a map on request of the site.

(b) SR-12 Home Station Lane Training Complex (HSLT CIED Battle Course) within the GSRA Training Area ST just off Highway 50 by Wells Road. A separate Range Card is published on this site/training complex and will be made available on request or by going to the Range Control Web Page. This site will have a staff from the MCES that will conduct training on request.

APPENDIX E

SPECIAL RANGE REQUEST (SRR) FORMAT

1. Purpose of a Special Range Requests. A SRR is required whenever the training unit desires to use a TA, training facility, or live-fire range for purposes other than what is identified in this Order or the Range Cards. As such, the submission of a formal letter of a SRR shall be related to a truly unique training requirement or training standard/need. Approval and execution of a SRR may require manual manipulation of the RFMSS, which preempts the software's ability to deconflict routine safety issues/concerns, and could require other TAs and live-fire ranges to be in a cold status or deconflicted by the unit and Range Control.

2. Examples Requiring a Special Range Request

a. Use of ALZs/TLZs and designated priority of use facilities (TLZ Phoenix, Camp Davis Airfield, Oak Grove Airfield, and TLZ Pheasant) require approval (written/e-mail) from a cognizant authority of the respective unit with confirmation notification via e-mail to Range Control for entry into RFMSS.

b. Using live-fire and maneuver training on static live-fire ranges or as per the Range Cards. (e.g., Fire and Maneuver on F-18, CBC G-6, Mobile MOUT Live-Fire, or MAC-3).

c. Firing large caliber dud/noise producing weapons (40mm and above) between the hours of 2359 to 0600. Firing beyond established quiet hours on all Sundays between 2359 to 1200 for all weapon systems. (Small arms are authorized to fire past 2359 depending on the location/range and day). SR-7 is not authorized to conduct live-fire past 2359 as an example.

d. Use of the MOUT Complexes/Facilities/or live-fire ranges beyond prescribed contractor support times.

e. Employing a weapon system/ammunition other than those identified in this Order and the Range Cards for a specific range which would be based on the SDZ. Will the requested weapon system and ammunition SDZ fit within the SDZ for that range? Can the SDZ be safely mitigated?

f. Requesting to use improvised demolitions or conducting night demolitions training.

g. Special events like Mess Nights (with or without alcoholic beverages, with or without underage drinking), Warrior Nights (with or without alcoholic beverages or with or without underage drinking), Family Days, A Day in their Boots, and Jane/John Wayne Days are other examples. Underage drinking must be approved via the unit's chain of

command (S-1/G-1) 30 days in advance as separate correspondence and a copy provided to Range Control at least 24 hours before the scheduled event for the underage drinking approval.

### 3. SRR Submission and Format

a. Prior to submitting the SRR, the unit must schedule the RTA or training facility via RFMSS. If scheduled as a special event the unit must ensure it is scheduled that way in RFMSS. This precludes Range Control from reviewing an SRR that cannot be approved because the TA, training facility, or live-fire range has not been scheduled in RFMSS and another unit has it scheduled.

b. The SRR with reviewed and signed ORM matrix/worksheet must be signed on all pages and submitted to the CG MCIEAST-MCB CAMLEJ. (RCD). All SRRs must be routed for endorsement in a timely fashion through the Unit's chain of command. Hand delivery to Range Control is the preferred method. LIVE-FIRE SRRs MUST HAVE BATTALION/SQUADRON LEVEL OPERATIONS SECTION ENDORSEMENT WITH SIGNED AND REVIEWED ORM WORKSHEET AND SHOULD BE RECEIVED AT RANGE CONTROL AT LEAST 30 WORKING DAYS PRIOR TO THE FIRST DAY OF INTENDED TRAINING. II MEF units must have it to II MEF (G-7) at least 37 days in advance. This lead-time provides the Range Control Range Safety Specialist adequate time to view the request and refine any safety parameters as required. Other time constraints associated with training on Camp Lejeune include the closure of the Atlantic Intracoastal Waterway (60 working days notice to obtain air sweep support) or activation of the R5306D/E and R5303/R5304 (GSRA air space) (One and two days notice to obtain air space must also be factored into the timeline).

c. Use the following sequence of paragraphs to ensure all required information is submitted:

(1) Paragraph 1. State the standard purpose for the range, training facility, or TA and nature of the SRR usage requested. State the range/training/area facility has been scheduled in RFMSS.

(a) Example. TLZ Falcon: TLZs are used for rotary-wing/tiltrotary-wing operations. 2d Tank Bn requests to conduct tank maneuver training and command post operations. TLZ Falcon is scheduled for 12-15 December 20XX in RFMSS.

(b) Example. F-18 is a static firing range. 1st Bn, 8th Mar requests to conduct live-fire and maneuver training. F-18 is scheduled for 12-13 Jan 20XX in RFMSS.

(2) Paragraph 2. State the weapons/weapons system and all ammunition to be employed. List all ammunition by DODIC.

(3) Paragraph 3. Describe the scheme of maneuver (SOM) to be employed. Provide a detailed narrative that sequentially lays out the

phases of the training to be conducted, including the planned timeline (day/night) for the scheduled events.

(4) Paragraph 4. Provide an ORM matrix worksheet that is signed. Identify the increased risk that may be incurred and the steps to be taken that will mitigate/control the known risks. (Example of mitigation: Assigning an increased number of PSOs /Assistant RSOs (ARSO) during live-fire maneuver exercises). The ORM matrix must be signed and reviewed by the command conducting the high risk event. The ORM worksheet can be found in this Order as an example.

(5) Paragraph 5. Identify the Surface Danger Zones (SDZs). This requirement may be waived if all live-fire and effects from live-fire are within the approved SDZ for that range/facility.

(a) Identify the SDZ/WDZ for each weapon system /ammunition being used.

1. Include a 1:50,000 scale for SDZ, which can be received from Range Control.

2. Include the following information for SDZ

- i. Map designation
- ii. Originator's name
- iii. Originator's rank/billet
- iv. Weapons/Weapon System
- v. Ammunition type by DODIC
- vi. Distance
- vii. List of appropriate grids
- viii. List of appropriate azimuths (in degrees)
- ix. Primary direction of fire (in degrees)
- x. SDZ/WDZ information if required

(b) Example. SDZ for the M240B, M16A2/M4, and MK-153 SMAW are provided as enclosures (1), (2), and (3) (of the SRR).

1. CAMLEJ 1:50,000
2. 1stLt Marine, I. M. /Unit

3. 1stLt/Platoon Commander/phone number
4. M249 Weapon System
5. A064 DODIC
6. Distance X
7. (6 digit): firing point 735315
8. Right lateral limit: 65 degrees magnetic; left lateral limit: 098 degrees magnetic
9. PDF 085 degrees MAG/GRID
10. Area(s) (a, h, i, etc) as appropriate

4. Review of SRR. SRRs shall be reviewed and endorsed by the appropriate unit's (Bn/Sqdn, Regt/MAG Div/MAW/MEU) S-3/G-3 Operations /Training Sections. SRRs submitted by non-infantry units, shall be reviewed for correctness and accuracy by an Inter-Service Resident Range Safety Course graduate (Intermediate Level). Live-fire SRR SDZs shall be reviewed by a Marine Gunner/S-3/Operations/Training Section of the using unit for accuracy and correctness (infantry units only). This ensures a Bn/Sqdn S-3 level unit has reviewed and approved the training requirements.

5. Assistance. Range Control can provide assistance in the conceptual development of the SRR and in most cases provide previously approved SRRs of a similar nature. However, due to the large number of SRRs submitted, Range Control cannot be expected to create the required SDZs or do the required risk assessment (ORM worksheet) for the unit.

APPENDIX F

ELECTRONIC WARFARE/DEFENSIVE MEASURE

1. General. The East Coast Electronic Warfare Systems Branch (RS 25) of the Naval Surface Warfare Center (NSWC), Corona Division, located aboard MCAS Cherry Point, operates electronic warfare threat and signals simulators at approved locations within Camp Lejeune.

**Formally known and still referred to as the Mid-Atlantic Electronic Warfare Range or MAEWR with callsign "BullRun"**, the purpose of RS 25 is to provide realistic Electronic Warfare (EW) training to combat aircrews. Both MAEWR and the MCAS Cherry Point Range Management Division, callsign "BIG ROCK", are co-located within Building 4280 aboard MCAS Cherry Point.

2. Background. The MAEWR operates EW threat and signals simulators at MCOLF Atlantic, MCALF Bogue, BT-11 at Piney Island, Radio Island, Navy Dare, and Pinecastle Range in Florida. Continuously changing tactics, training, and procedures as a result of the lessons learned in Iraq and Afghanistan and the Navy and Marine Corps' renewed emphasis on amphibious operations, as well as the introduction of UAS platforms into the training environment have increased the demand for EW training resources and areas at Camp Lejeune. The MAEWR EW Threat Systems Aircrew User's Guide is available to all aircrews to use as an EW training guide. Contact the EW Mission Coordinators to request a copy.

a. Available EW Threats And Signals. The MAEWR's Aircrew User's Guide lists the assorted EW threat simulators available for training. EW threat simulators include early warning and long range acquisition radars, short and medium range Surface-to-Air Missiles (SAMs), various Anti-Aircraft Artillery (AAA) systems, as well as short range IR/UV missile simulators, MANPADS, and AAA Strobe light simulators.

b. Scheduling EW Training

(1) Units requesting electronic warfare training shall notify the Range Control Officer 10 working days before the scheduled training event. All EW training requests shall be entered into the Lejeune RFMSS by the requesting unit after coordination with EW Mission Coordinators at MCAS Cherry Point by calling 252-466-2123 or DSN 252-2123. All units are responsible for scheduling all requested TAs using RFMSS. This will ensure there will be no live-fire being conducted in ground TAs. Adjacent or adjoining airspace coordination and scheduling is done through the Range Management Division, using MCAS Cherry Point RFMSS for other areas within the Cherry Point Operating Area and/or for use of the W122 by contacting Fleet Forces Atlantic Exercise Coordination Center (FACSFAC VACAPES), callsign "Giant Killer" at (757) 433-1320/1220 or DSN 433-1320/1220.

(2) At the discretion of the RCO, ground TAs may be scheduled on a co-user basis depending on the type of EW training being conducted.

(3) Training events that may cause the closure of the Atlantic Intracoastal Waterway, or the N-1/BT-3 impact area must be scheduled at least 65 days in advance.

(4) Upon completion of training, units will report to BLACKBURN the type of aircraft that received EW training and the number of aircrew aboard.

c. Threat Emitter Sites. The selected sites listed below have been optimized for training support. Sites 1, 2, and 3 were created to support unit level training for the MCAS New River based squadrons and MEU/C2X/JTFEX training. Sites 4-14 were created to provide additional unit level training capabilities.

**Mobile/Transportable EW Threat Systems Sites**

Site #	Site Name	Lat/Long	Grid
1	OP-2	34.39.45N 077 16.25W	18S TD 915-375
2	MOUT Facility	34 39.82N 077 15.02W	18S TD 938-380
3	CBC G-6 Range	34 37.52N 077 14.64W	18S TD 941-339
4	TLZ Hawk	34 36.54N 077 17.58W	18S TD 898-321
5	OP-5	34 37.89N 077 17.61W	18S TD 898-345
6	TLZ Falcon/ Onslow Beach Road	34 34.86N 077 16.70W	18S TD 911-288
7	Mock Up Road	34 34.19N 077 16.41W	18S TD 911-276
8	EOTG Site/Onslow Beach	34 33.70N 077 17.00W	18S TD 905-264
9	TLZ Albatross	34 34.06N 077 17.36W	18S TD 895-276
10	TLZ Bluebird	34 32.96N 077 18.90W	18S TD 696-391
11	Moore Road HA TA	34 37.41N 077 21.19W	18S TD 843-338
12	ALZ Kingfisher (GSRA)	34 35.69N 077 29.57W	18S TD 711-324
13	Davis Tram Road (GSRA)	34.35.38N 077 32.86W	18S TD 655-302
14	Bridge Road (GSRA)	34 33.19N 077 31.36W	18S TD 685-264

d. Chaff and Flares

(1) Chaff training is authorized aboard Camp Lejeune over the G-10 Impact Area after proper coordination with Range Control/BLACKBURN

(2) Flare training is authorized if properly scheduled in RFMSS and the flares stay within the boundary of G-10 Impact Area at all times. Flare use is never authorized in G-10 Impact Area during Fire Condition 5 or higher.

(3) Training units must monitor wind speeds and directions to minimize flare debris migration off-base.

e. Tactical Shapes

(1) The MAEWR provides movable towed tactical shapes incorporating realistic size, color schemes, and multi-spectral cues, as a low-cost, light weight, environmentally-friendly target solution for various range applications. Due to the high replacement costs of these targets they shall not be used for live-fire training or be emplaced in live-fire areas. However, they may be used to simulate OPFOR representations or provide a threat presence to ground personnel engaged in tactical training operations. Primarily they will be used in conjunction with electronic warfare and air reconnaissance. Photos of these shapes are in the MAEWR's Aircrew User's Guide.

(2) Multi-spectral cues include:

(a) Visual 3-D representation (full scale) created by using Solid (olive drab or desert sand) or Camouflage (forest or desert) paint.

(b) Radar signature (representative radar cross section (RCS)).

(c) IR Signature created by using metal mesh under shape framing to generate heat differentials with ambient air.

(d) Doppler signature created by rotating antennas.

f. Use of Smokey Sams for Training

(1) The use of the GTR-18 (Smokey SAM) pyrotechnic simulator has been authorized for use aboard Camp Lejeune during the conduct of defensive measures training for aircrews. The GTR-18 (Smokey SAM) provides a visual cue to aircrews undergoing defensive measures training. Requests to use the GTR-18 (Smokey SAM) will be included in the special range request submitted to the RCO. At no time will the GTR-18 (Smokey SAM) be utilized aboard Camp Lejeune without the express approval of the RCO.

(a) Responsibility. When conducting training with the GTR-18 (Smokey SAM) it shall be the responsibility of each CO to ensure that only qualified and certified personnel operate the GTR-18 (Smokey SAM). The following safety requirements will be adhered to at all times. No deviations are authorized without the express approval of the RCO or RSS.

(b) Personnel Requirements. A minimum of two and a maximum of four certified and qualified GTR-18 (Smokey SAM) operators for each GTR-18 (Smokey SAM) launch site.

(c) Safety Requirements

1. Smoking and flame producing devices are prohibited at the GTR-18 (Smokey SAM) launch site and within a 50-ft. perimeter of the launch site.

2. Two 10-pound A, B, or C fire extinguishers will be at each GTR-18 (Smokey SAM) launch site.

3. Each operator will wear gloves and safety glasses or face shields while at the GTR-18 (Smokey SAM) launch site.

4. Two-way radios to communicate with BLACKBURN.

5. One properly equipped hospital corpsman at each launch site.

g. Smokey SAM Operating Procedures

(1) Prior to the launch of a GTR-18 (Smokey SAM) radio communications will be established with BLACKBURN. Once communications have been established, permission will be requested to go hot.

(2) The GTR-18 (Smokey SAM) launch tube(s), (LMU-23E (1-BAY) and LMU-24E (4-bay)), must not exceed 75 degrees from the deck for all launch evolutions.

(3) The launcher rack will be set up at an appropriate site in terms of distance from towers, structures, and vehicles (minimum 100 feet); adjust for quadrant azimuth and elevation angle in accordance with wind strength and direction. It is desired that the GTR-18 (Smokey SAM) have a trajectory elevation of 60-75 degrees and a trajectory azimuth away from the launch site (including wind effect of both).

(4) The GTR-18 (Smokey SAM) will be launched in such a manner as to obtain the best visual effect while minimizing foreign object damage to aircraft and personnel.

(5) The GTR-18 (Smokey SAM) will not be launched directly at an aircraft, vehicle, structure (permanent or temporary), or personnel. The flight path of a GTR-18 must be offset a minimum of 1,000 feet from any participating aircraft's flight path.

(6) Once training is complete, BLACKBURN will be contacted via radio and permission to go "COLD" will be requested. Once "COLD", the total number of rounds expended will be reported to BLACKBURN.

h. Emergency Procedures

(1) Should property damage or personnel injury occur, or serious safety hazards be identified, all GTR-18 (Smokey SAM) simulator operations will be halted and BLACKBURN be notified immediately and the reason for halting training reported and permission to go "COLD" requested.

(2) Training will not resume until corrective action has been implemented and reported to BLACKBURN and permission to go hot requested.

(3) In the event of a fire/accident, immediately report this information to BLACKBURN, fight with onsite extinguishers and try to contain the fire at the site.

(4) Evacuate injured and non-essential personnel to a minimum of 500 ft.

(5) If a GTR-18 rocket hang-fire occurs, notify BLACKBURN and request EOD support.

(6) Unserviceable igniter rods for GTR-18 rockets will be replaced in their respective storage containers for later disposal by EOD.

i. Transportation and Temporary Storage. All vehicles, government owned or government furnished, transporting the GTR-18 (Smokey SAM) will be properly placarded with 1.3G explosive signs on all four sides of the vehicle and readily visible to traffic. Each vehicle will be inspected for road-worthiness prior to loading. Two 10-pound B/C fire extinguishers must be on board; one inside the cab and one mounted on the bed. Both fire extinguishers shall be stored for easy access in the event of an emergency. The GTR-18 will not be transported in a closed vehicle unless separated from the passenger compartment by a permanent dividing wall. Passengers are prohibited from riding in the open bed of any vehicle transporting munitions.

(1) Drivers Licensing Requirements for Military Personnel. Military personnel will attend the explosive driver's course and have a valid government motor vehicle operator's permit with an explosives endorsement.

(2) Drivers Licensing Requirements for Civilian Employees. For off-base transportation of the GTR-18, civilian employees will possess a valid commercial driver's license with a HAZMAT endorsement. For on-base, they will attend explosives driver refresher training or attend the explosive driver's course and have a valid Government motor vehicle operator's permit.

(3) Government Contract Employees. For off-base and on-base transportation of the GTR-18 (Smokey SAM), Government contract employees will possess a valid commercial driver's license with a HAZMAT endorsement.

APPENDIX G

RANGE CONTROL PHONE NUMBERS

1. Range Control Headquarters

<u>POC</u>	<u>Number</u>
Director, Range Control Division	451-3932
Secretary, Range Control Division	451-3733
FAX, Range Control Division	451-1593
Range Control Officer	451-1235
Range Control Operations Officer	451-1236
Range Safety Specialist	451-1240
Range Control Operations Chief	451-5803
Range Control IT Specialist	450-7966
Scheduling Section	451-3065/3066/4478
FAX, Scheduling	451-1544
BLACKBURN/Fire Desk	451-3064/4449
CS Chamber (Mainside)	451-3518
Navy Boat Crew	451-5046
Base EOD	449-0558
MOUT Staff	451-2364/0752/0508/0753
Training Tank Area 5	451-2027
Training Tank Courthouse Bay	440-6005
GSRA, SR-46	449-6228/6205/6341
FAX, GSRA	449-6227
WTBN S-3 Stone Bay	450-2918

APPENDIX H

WAIVER OF LIABILITY AND ASSUMPTION OF RISK MANAGEMENT

**UNITED STATES MARINE CORPS**

In consideration of the privilege of participating/observing a live-fire/non live-fire exercise aboard Camp Lejeune, North Carolina, and further recognizing the voluntary nature of my participation in this event, I, the undersigned person, intending to be legally bound, hereby promise to waive for myself, my guardians, heirs, executor, administrators, legal representatives and any other persons on my behalf, any and all rights and claims for damages, demands, and any other actions whatsoever, including those attributable to simple negligence, which I may have against any of the following persons or entities: the United States of America; the Department of Defense; the Department of the Navy; the United States Marine Corps; Marine Corps Installations East-Marine Corps Base, Camp Lejeune, North Carolina; any and all individuals assigned to or employed by the United States, including but not limited to the Secretary of Defense; the Secretary of the Navy; the Commandant of the Marine Corps; Commanding General, Marine Corps Installation East-Marine Corps Base, Camp Lejeune, North Carolina; in both their official and personal capacities; any medical support personnel assigned thereto; and these persons' or entities' representatives, successors, and assigns which said injuries arise out of my participation in the activities comprising the aforesaid event; as well as any use by me of any Marine Corps Installation East-Marine Corps Base, Camp Lejeune, North Carolina, or government equipment or facilities in conjunction with and furtherance of such participation by me. I FURTHER VERIFY THAT I HAVE FULL KNOWLEDGE OF THE RISKS ASSOCIATED WITH ATTENDING THIS EVENT, AND UNDERSTAND THAT I WILL BE VIEWING A DEMONSTRATION OF MILITARY EQUIPMENT/PERSONNEL ENGAGED IN SIMULATED COMBAT ACTIVITIES, INCLUDING LOW-FLYING AIRCRAFT, HIGH SPEED TANKS, AND EXPLODING ORDNANCE. I EXPRESSLY, KNOWINGLY, AND VOLUNTARILY ASSUME THE RISKS INVOLVED IN THE PLANNED ACTIVITIES INCLUDING TRANSPORTATION TO AND FROM THE EVENT, AND AGREE TO HOLD THE UNITED STATES HARMLESS FOR ANY RESULTING INJURY. I understand that this assumption of risk shall remain in effect until notice of cancellation is received by the Commanding General, Marine Corps Installation East-Marine Corps Base, Camp Lejeune, North Carolina. I understand that, should I decline to execute this agreement, I will not be permitted to attend the live-fire exercise.

\_\_\_\_\_  
(Signature of Witness)

\_\_\_\_\_  
(Signature) (Date)

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
Signature of Parent/Guardian on behalf

of \_\_\_\_\_  
(Name of Minor)

Date: \_\_\_\_\_

Please Take Note: This document is available as a PDF and can be requested via e-mail.

APPENDIX I

ROIC/RSO RANK REQUIREMENTS

Type of Event	ROIC (Note 1)			RSO (Note 1)			Additional Req
	OFF	WO	SNCO	OFF	WO	SNCO/N CO	
Practice Hand Grenades; Sub-Caliber Training Devices; Class 1-4 LASERS; Training Simulators; Trip Flares, Blanks	X	X	E-6	X	X	E-6	Note 17
All MOUT Facilities Operations	X	X	E-6	X	X	E-6	
SESAMS (Simunition) Training	X	X	E-6	X	X	E-6	
<u>Static Firing Only</u> , Small Arms and Machineguns (.50 cal and Below) Includes use of Short Range Training Ammo (SRTA)	X	X	E-6	X	X	E-6	
Chemical Agents (CS) Only 5711/5702 for all CS Events	X	X	E-6 Note 2	X	X	E-5/E-4 Note 2	
Aerial Gunnery and Air Defense Weapons (Rockets and Guided Missiles); Live Hand Grenades, Grenade Launchers and Grenade Machineguns; Live Mines, Explosive and Demolitions; Tank, AAV and LAR Live-fire (Training Practice and Live Ammunition), HOT FARP (fuel or ammunition)	X	X	E-7	X	X	E-6	Breaching requires Certified Breacher/Demo (any rank); Hand Grenade Pit NCOs must be certified by unit cmdr for duties
(Air) Fixed Wing/Rotary Wing Operations, DASC Operations	X	X	E-7 Note 3	X	X	E-6 Note 3	Either ROIC or RSO must be FAC/JTAC
Naval Gunfire	X	X	E-7 Note 4	X	X	E-6 Note 4	NGLO or SFCP
Field Artillery. (105mm/155mm)	X	X	E-7 Note 5	X	X	E-6	Firing and observation
Mortars. (60mm/81mm/120mm)	X	X	E-7	X	X	E-6 Note 6	Firing and observation

Direct Fire Antitank Rockets and Missiles (Inert and Live Ammunition)	X	X	E-7	X	X	E-6	
Live-fire Maneuver/Movement Exercises (Ground, Vehicles, and Air)	X	X	E-7	X	X	E-6	
Live-Fire Exercises with organic weapons; Fire Team through Company	X	X	E-7	X	X	E-6	
Combined Arms, Live-Fire Exercises with external Fire Support; Squad through Battalion or larger	X	X	E-7 Note 7	X	X	E-6	
EOD Operations, EOD Proficiency Training, Emergency Destruction only	X	X	E-7 Note 8	X	X	E-5 Note 8	EOD MOS Marines only
Group 2 and larger UASs with the capability of using LASERS and weapons	X	X	E-6	X	X	E-6	Note 9

<b>Non-Live-Fire Events</b>	<b>ROIC (Note 1)</b>			<b>Additional Requirements</b>
CVOT Courses/Facilities Operations	X	X	E-6	Plus qualified CVOT/Facility Instructor
Dive Operations	X	X	E-5	Note 10
Parachute Operations	X	X	E-5	Notes 11 & 12 See notes for personnel and Cargo
HST Operations	X	X	E-5	Note 13
HRST Operations including Towers	X	X	E-5	Note 14
Water Survival Training (All Training Tanks)	X	X	E-6	Note 15 Plus separate MCIWS Marine
Helo Casting/Open Water Swim	X	X	E-6	Note 16
Use of Blanks and Pyro in Training Areas	X	X	E-5	Note 17 Sgt's (E-5) without issued ROIC/RSO Card must be on the Unit's Command Cert Letter
Group 1 UAS operations	X	X	E-6	Note 18

NOTES:

1. Civilians in the grade of GS-07/equivalent or above may act as the ROIC and GS-05/equivalent or above as the RSO. Approved civilian contractors may only act as RSOs when approved by Installation Commander via an annual formal letter that is endorsed and in accordance with SOW. ROIC/RSO qualified civilian personal must be listed on the Unit's CO Certification Letter. All ROICs/RSOs must attend the Camp Lejeune ROIC/RSO class.

2. The event ROIC is the only person required to report to Range Control to sign for a CS type training event like open air, Gas Chamber, Field Expedient Gas Chamber (In a Tent). Both the ROIC and RSO must be Chemical, Biological, Radiological, Nuclear, and High Yield Explosives (CBRNE 5702, 5711) qualified when conducting CBRNE (CS) and be listed on the CO's certification letter. Unit must list all CBRNE MOS Marines on the Command Certification Letter regardless of rank. If unit does not have a SSgt or above 5711/5702 Marine any MOS SSgt or above that is CAMLEJ ROIC/RSO qualified can sign for the event but must have the names of two 5711 Marines on a Command Certification Letter supporting the scheduled event and at least one must be a 5711 Cpl/E-4 or above.
3. A SNCO, ROIC/RSO must be JTAC qualified, E-7 or above for DUD producing ammunition, E-6 or above for SIMCAS, and listed in the CO's Certification Letter.
4. The ROIC is the only person required to report to Range control to sign for the event. ROIC and RSO must be a trained Naval Gunfire Liaison Officer, or Shore Fire Control Party (SFCP). ROIC must have RSO's name and both names must be listed in the CO's Certification letter.
5. Use of an E-7 or above as ROIC is authorized only when approved by Installation Commander. Either the battery executive officer or platoon commander normally performs duties of the ROIC/RSO.
6. Per the most recent change to reference (a):
7. The ROIC for a battalion or larger combined arms live-fire exercise (CALFEX) will be a field grade officer (O-4 or above).
8. Two persons are required; ROIC who is E-7 or above and RSO who is E-5 or above for operational training. ROIC may be E-6 or above when conducting EOD proficiency training on EOD Ranges (EOD-2/EOD-3). E-5s can perform emergency destruction operations only.
9. See Chapter 4 of this Order for additional guidance on Group 2 and larger UAS Operations. Both the ROIC (Unmanned Aircraft Commander (UAC)) and RSO (UAC) will be trained and certified by the commander on that model UAS (Fire Scout, Scan Eagle, Blackjack, Shadow, etc.). The Commanding Officer of that unit will certify this in their Command Certification Letter by including a column to designate UAS UACs and another column for UAS pilots/Operators certified and current in the enclosure to the letter. Unit must list all UAS Pilots/Operators with or without RSO numbers.
10. The ROIC/Dive Supervisor (E-5 or above) will be the only person required to report to Range Control to sign for the event and must have a current ROIC/RSO certification. Safety Divers must be a Marine

Combat Diver or SCUBA Diver, any rank. The event must also have a Dive Medical Technician or SARC on standby. E-5 or above RSO qualified Dive Supervisors must be listed in the CO's Certification letter.

11. The ROIC/Drop Zone Safety Officer (DZSO) for jumpers will be the only person (E-5 or above) required to report to Range Control to sign for the parachute event. The DZSO for jumpers will be certified per all requirements in the references (bo) and (bp). The DZSO must have a current ROIC/RSO card and meet all the requirements set forth in this Order. The DZSO must be a certified/current DZSO. The DZSO must provide the names of two additional jumpmasters for personnel drops during the checkout process so Range Control can verify that they are on the CO's certification letter. Any changes to personnel, other than the DZSO, must be called into Range Scheduling or BLACKBURN prior to conducting the RFMSS scheduled event. The DZSO must be a certified/current DZSO. Any changes to the DZSO must be done in person at Range Control Scheduling requiring a new signature before training can be conducted. DZSOs (ROIC/RSO Qualified) and jumpmasters (ROIC/RSO qualification not necessary) are required to be listed in the CO's certification letter. If U.S. Army, Air Force, or Navy jumpmasters are used in aircraft and may not be on the CO's certification letter, mention the military service when their names are requested by Range Scheduling or BLACKBURN.

12. The ROIC/DZSO for cargo will be the only person (E-5 or above) required to report to Range Control to sign for the parachute event. The DZSO must provide the name of one additional jumpmaster for cargo drops during the checkout process so Range Control can verify the person with the CO's certification letter. Any changes to personnel, other than the DZSO, must be called into Range Scheduling or BLACKBURN prior to conducting the RFMSS scheduled event. Any changes to the DZSO must be done in person at Range Control Scheduling requiring a new signature before training can be conducted. DZSOs (ROIC/RSO Qualified) and jumpmasters (ROIC/RSO qualification not necessary) are required to be listed in the CO's certification letter. If U.S. Army, Air Force, or Navy jumpmasters/navigators are used in aircraft and may not be on the CO's certification letter, denote the military service when their names are requested by Range Scheduling or BLACKBURN.

13. The ROIC/Safety Insert Officer (SIO) (E-5 or above) for HST events will be the only person required to report to Range control to sign for the event. ROIC must be SIO, ROIC/RSO, and HST qualified. HST events require at least one E-4 or above certified HST individual (ROIC/RSO qualification not necessary) in addition to the SIO. HST operations require certified HST personnel at all points of the lifted object. All other individuals conducting training have no rank restrictions but must be HST certified or undergoing training to be

HST certified with no requirements to be certified ROICs/RSOs. All qualified/certified SIOs and HST certified personnel must be on the unit's Command Certification Letter.

14. The ROIC/SIO (E-5 or above) for HRST/Hoisting events will be the only person required to report to Range Control to sign for the event. ROIC must be SIO, RSO, and HRST Master qualified. HRST events require at least one E-4 or above and certified HRST individual on each rope (RSO qualification not necessary) in addition to the SIO. For hoisting events/operations the crew chief of the aircraft will be the qualified individual at the top. Other safety officers must be an E-4 and above with no requirements to be certified RSOs. All qualified /certified SIOs and HRST certified personnel must be on the unit's Command Certification Letter.

15. The ROIC and/or WSSO, of swim training events in training tanks must be ROIC/RSO qualified. The event requires ROIC (E-6 or above) to sign for the training tank. ROIC must know the names of the MCIWS instructor(s) and the unit they are from to support the training. The ROIC signing for training tank, regardless of his/her level of swim qualification cannot be the instructor conducting the training. All MCWIS instructors must be listed on the unit's Command Certification Letter.

16. The ROIC and/or WSSO, of open water swim training events must be ROIC/RSO qualified. Open water events require one individual to sign for the event. The ROIC (E-6 or above) must be certified in one of the following; CWSS, MCIWS, MCITWS, Dive Supervisor or civilian equivalent certification. ROIC must be certified on the unit's Command Certification Letter to sign for the event. These events include and are not limited to helo-cast, fin operations, or any other dive indoctrination training. Non-USMC military commands/units must have civilian equivalent certifications (Red Cross, etc). The ROIC is not authorized to take part in any training. Certified instructors /safety swimmers may be in the water at any given time with no restrictions to the amount of time. Certified instructors are responsible to meet any and all other additional requirements to meet the restrictions placed on the number of additional safety personnel /swimmers required. ROIC must ensure the necessary safety equipment, communications assets, safety vehicle(s), and safety boats are on hand prior to conducting training. All open water swim ROICs and certified instructors (ROIC/RSO qualification not necessary) must be listed on the unit's Command Certification Letter.

17. When utilizing small arm blanks, pyrotechnics, smoke, or other related training devices that are properly scheduled in RFMSS by the using unit for that training area/training areas. An E-5 (ROIC/RSO qualification not necessary, but must be listed on the Command Certification Letter) or above is required to sign for the event and must be present on site for all training being conducted. ROIC must

ensure the necessary safety equipment, communications assets, and safety vehicle(s) (if required), are on hand prior to conducting training. All ROICs must be listed on the unit's Command Certification Letter.

18. See Chapter 4 of this Order for additional guidance on Group 1 UAS Operations. The ROIC (Unmanned Aircraft Commander (UAC)) and RSO (Pilot/Operator or Contractor) will be trained and certified by their CO on that model UAS (Raven, Wasp, Puma, etc). The CO of that unit will certify this in their Command Certification Letter by including a column to designate UAS UACs and another column for UAS pilots /Operators certified and current in the enclosure to the letter. Unit must list all UAS pilots/operators with or without RSO numbers. If unit is undergoing initial UAS training a unit E-6 or above must be designated as UAS UAC certified and the contractor will provide an RSO for the training.

APPENDIX J

NOTAM PARA DROP WORKSHEET

Closest Civilian NAVAID or Facility within 25nm, also radial/DME from that point.

Example: DZ Pheasant ILM 069/019

---

Radius of the Jump EX (in nm):

---

Altitude of the Jump EX: SFC TO 10,000 Feet:

---

Date and Duration of Jump:

---

Call Sign and Type of Aircraft and Radio Frequency the Aircraft will be Operating on:

---

The Number of Passes and the Number of Jumpers on Each Pass:

---

POC and Phone Number:

---

Any questions contact:  
Lejeune Range Scheduling at (910) 451-3065/3066/4478  
[lejeunerangescheduling@usmc.mil](mailto:lejeunerangescheduling@usmc.mil)  
Cherry Point Airfield Management (252) 466-6768

APPENDIX K

MCOLF OAK GROVE STATEMENT OF UNDERSTANDING

I understand and will ensure compliance with the requirements of this Order governing the use of MCOLF Oak Grove for ground training. The following items are restated for emphasis:

- a. All aircraft have the right of way.
- b. Using ground units will check in and out with the MCOLF Oak Grove Maintenance Crew located at Building 8512.
- c. All vehicles and personnel are prohibited from using the runways except appropriate aircraft crash rescue equipment.
- d. Vehicle traffic is restricted to current road system. No off-road vehicle traffic is authorized. Do not drive around barriers, cables, or gates. Do not use fire breaks as roads. Do not drive on or near wildlife food plots. Food plots are identified by appropriate signage.
- e. All trash and waste must be collected and removed upon departure.
- f. Digging is prohibited. Fighting/Fox holes, cat holes, and straddle trenches are not authorized.
- g. The use of open fires is prohibited. (No warming fires are permitted by military units conducting military training at Oak Grove).
- h. The use of concertina wire is prohibited unless it is used for physical security and it must be removed upon the unit's departure.
- i. Communication wires will be removed by the using unit. Wire or cable may not be hung by driving nails or spikes into trees.
- j. No live firing is authorized. No pyrotechnics, smoke, or flares are authorized. Use of blanks up to .50 cal is authorized. Units will police up and remove all empty brass casings and links.
- k. Training outside the perimeter road is prohibited in order to preserve environmentally sensitive areas of the Trent River.
- l. Cutting and clearing of trees or brush is prohibited.
- m. Extreme care will be taken to prevent damage to trees and the environment.

n. During emergencies, all access roads will be cleared for emergency vehicles. Units will be required to assist during emergency situations such as the containment of brush fires.

(1) For any emergencies contact Pollocksville Fire Department at 911.

(2) Contact BLACKBURN via radio 34.70 or phone (910) 451-3064.

(3) A land line phone is available at the maintenance work shop, Building 8512, at (252) 466-3817.

o. Squadron/Company or larger units will provide gate guards for Gate #1 upon arrival of advanced party or arrival of any attached units until departure of all personnel.

p. Training units will not use the areas designated for recreation.

q. Using units will provide one portable toilet per 25 troops and toilets will be serviced every day. Access to MCOLF Oak Grove will not be permitted until portable toilets are in place.

r. Portable generators will have drip pans placed under them before starting, and shall remain under them while in operation. A satisfactory system for draining drip pans into a container for removal from Oak Grove will be provided by the using unit in the SRR and ULCP.

s. All units are required to have drip pans under vehicles if they are in the field for over 24 hours. All units must contact their ECO and notify BLACKBURN if there is a spill or release. Reference MCIEAST-MCB CAMLEJO 5090.9 (HAZMAT Order) and this Order for all environmental concerns.

t. Active duty, retired personnel, their dependents, and civil service personnel are authorized to use Oak Grove recreational areas. For additional rules and regulations for recreational use at Oak Grove consult MCCA. Availability of recreation areas will be subject to military operational requirements. The CLEO will maintain a call in messaging system with the hours of operation and recreation area availability.

Print Rank/Name \_\_\_\_\_ Unit \_\_\_\_\_ RSO # \_\_\_\_\_

Phone \_\_\_\_\_ Date \_\_\_\_\_

Check In \_\_\_\_\_ Check Out \_\_\_\_\_ Check In \_\_\_\_\_ Check Out \_\_\_\_\_

\_\_\_\_\_  
Signature Unit POC

\_\_\_\_\_  
Signature Oak Grove Crew/Staff

Appendix L

RSO and ROIC Designation Letter



UNIT HEADING LETTERHEAD

3570  
Office  
7 Oct 14

From: Commanding Officer, \_\_\_ Company, \_\_\_\_\_ Battalion  
To: Commanding General, Marine Corps Installations East-Marine  
Corps Base, Camp Lejeune (Range Control Division)

Subj: COMMANDER'S SAFETY CERTIFICATION LETTER OF RANGE OFFICER-IN-  
CHARGE (ROIC) AND RANGE SAFETY OFFICER (RSO)

Ref: (a) MCO 3570.1\_/DA PAM 385-63  
(b) MCO 3550.9\_  
(c) MCIEAST-MCB CAMLEJO 3570.1

1. Per the references, I certify the personnel listed below to perform the duties of the ROIC and/or RSO for my unit/command. They have been thoroughly trained and have demonstrated complete knowledge of the weapons, ammunition and hazards associated with ranges/facilities at Marine Corps Installations East-Marine Corps Base, Camp Lejeune (MCIEAST-MCB CAMLEJ).

2. The individuals named below are familiar and understand the requirements directed by the above references to include all applicable directives, messages, changes and updates. They are additionally aware that they must have a completed the Marine On-Line Range Safety Course (RTAMRSOCAA, New Course) or (CI060120CA, Old Course) and the Camp Lejeune's Range Control Safety Officer Course.

3. This letter will be updated quarterly or when changes and/or additions warrant. Point of contact is Master Sergeant SCHEDULING at (910) 451-3065 or DSN 751.

U. S. MARINE

NAME	RANK	RC CONTROL #	SMALL ARMS/STATIC	Small Arm/FIRE & MOVEMENT	MORTARS 60 / 81 / 120	FAC/JTAC	UAS (C/P)	LASERS	ARTILLERY	NGF	HST/HRST	LASER	PARA OPS (D/J)	SWIM QUAL (D/M)	DEMO	Grenades	CBRN	CVOT
MARINE, U.S.	MSgt	000999																
MARINE, A.B.	SSGT	2356																
Any Additional Special Qualifications can be added.																		
		Date																
		Name																
		Sign																
			<b>Certified: CO/By Direction</b>															

APPENDIX M

AUTHORIZED AMMUNITION

RANGE	Misc.		Rifles/MGs		Demolitions, Mines, Grenades, Grenade Launchers										Rockets & Missiles		Cannons & Mortars		Tank, APC & Aerial Gunnery																		
	Pistols	Shotguns	NLW	SESAMS	5.56mm	7.62mm	.50 cal.	5.56mm	7.62mm	.50 cal.	Demo	Breaching Expl	25mm	40mm	40mm	Practice	Claymore	Bangalore	Line CHC	Pyro Hand	Grenade	Rockets	Missiles	Stinger	Artillery	Mortars	MK76	MK82	LGTR	2.75 in.	20mm	105mm	120mm	155MM			
A-1	X																																				
B-12	X																																				
R-100 Skeet/Trap		X																																			
D-29A	X																																				
D-29B	X																																				
D-30	X																																				
E-1	X	X	X	X	X	X	X	X	X	X													X														
EOD-2										X																											
EOD-3										X	X																										
ETA-1										X				X																							
ETA-2										X				X	X																						
ETA-3										X				X																							
ETA-4										X				X																							
ETA-5/ETA-5A																																					
ETA-6 CVOT																																					
ETA-7										X	X			X			X																				
ETA-7A										X																											
ETA-7B										X																											
ETA-7C										X																											





RANGE	Misc.		Rifles/MGs										Demolitions, Mines, Grenades, Grenade Launchers					Rockets & Missiles			Cannons & Mortars		Tank, APC & Aerial Gunnery																		
	Pistols	Shotguns	NLW	SESAMS	5.56mm	7.62mm	.50 cal.	5.56mm	7.62mm	.50 cal.	Demo	Breaching	Expl	25mm	40mm	40mm	Practice	Claymore	Bangalore	Line	CHC	Pyro	Hand	Grenade	Rockets	Missiles	Stinger	Artillery	Mortars	MK76	MK82	LGTR	2.75 in.	20mm	105mm	120mm	155MM				
K-508			X	X																																					
K-509	X				X														X																						
K-510																					X																				
L-5	X	X			X	X							X																												
MAC-1	X	X			X														X	X																					
MAC-2	X	X			X														X	X																					
MAC-3	X	X		X	X														X	X																					
MAC-4	X	X			X														X	X																					
MAC-5	X	X			X														X	X																					
MAC-6	X	X	X		X																																				
MAC-7															X																										
SR-6	X	X			X	X							X																												
SR-7	X	X			X	X	X					X		X																								X	X		
SR-8/SR-8A					X	X	X																																		
SR-9	X	X			X	X	X	X	X	X					X																										
SR-10	X	X			X	X	X							X																								X	X	X	
SR-11	X																																								
Stone Bay Rifle Ranges Alpha, Bravo, and Charlie Ranges	X					X	X																																		
Stone Bay Rifle Range					X	X																																			







RANGE	Misc.	Rifles/MGs	Demolitions, Mines, Grenades, Grenade Launchers										Rockets & Missiles	Cannons & Mortars	Tank, APC & Aerial Gunnery																								
	Pistols	Shotguns	NLW	SESAMS	5.56mm	7.62mm	.50 cal.	5.56mm	7.62mm	.50 cal.	Demo	Breaching	Expl	25mm	40mm	40mm	Practice	Claymore	Bangalore	Line	CHC	Pyro	Hand	Grenade	Rockets	Missiles	Stinger	Artillery	Mortars	MK76	MK82	LGTR	2.75 in.	20mm	105mm	120mm	155MM		
Camp Davis, Airfield Seizure Facilities South			X																																				
Camp Davis, Airfield Seizure Facilities North																																							
LHD Deck																																							
Area 5 Training Tank																																							
Courthouse Bay Training Tank																																							
EOD-2											X																												
EOD-3										X																													
CS CHAMBER/CBRN Obstacle Course Mainside																																							
CS Chamber Camp Geiger																																							
G-10 Live-fire Convoy Range	X			X	X	X								X				X																					
INTERMEDIATE SEARCH /TACTICAL SITE EXPLOITATION			X																																				





APPENDIX O

ROIC AND RSO CHECKLIST

**RANGE OFFICER-IN-CHARGE (ROIC) AND RANGE SAFETY OFFICER (RSO)  
CHECKLIST**

(Duties listed are to be performed by the ROIC and RSO as noted)

This is only a guide and is subject to change.

<b>PHASE I - BEFORE CONDUCTING ANY TRAINING/FIRING</b>	
<b>Range Officer-in-Charge (ROIC) RESPONSIBILITIES</b>	
	Checkout the assigned range(s)/facility(ies) from Range Control by noontime (1200) the day before, except on Fridays or up to eight days in advance. The ROIC must have his ROIC/RSO Card with him/her and be on the Unit's current command certification letter/roster.
	Assume responsibility for the scheduled range, related airspace, and training facility and all gear assigned or signed for.
	Be completely familiar with the Camp Lejeune Special Military Installation Map (MIM), reference (a), MCIEAST-MCB CAMLEJO 3570.1 (RC SOP), Range Cards, Weapons TMs and other required orders/references before reporting to Range Control.
	Obtain or certify possession of required safety equipment (range regulations (SOP), range flag, and keys).
	Receive a briefing from Camp Lejeune, Range Control on conditions or events that may affect your range utilization such as any conflicts that must be deconflicted by the using unit.
	Certify that all pertinent range and safety regulations have been read, understood, and are complied with at all times.
	Ensure appropriate medical support (properly equipped Corpsman /Medic/Contractor EMT) and government safety vehicle are present with the unit and that all personnel are wearing the proper safety (PPE) equipment for that type of training being conducted.
	Ensure that the impact area or range is clear of all personnel and that all safety measures directed by this Order and the assigned Range Card have been taken (e.g., use of barriers, posting of air sentries, posting of range gate guards when necessary to deny access to the range/impact area).

	<p>Ensure that two means of communications are utilized between the unit conducting training and Range Control (e.g., AN/PRC-152/AN/PRC-152 or unit assigned hand held radios). The responsibility for proper communications with Range Control rests with the training unit/ROIC/RSO. The frequencies used by Range Control can be found in this Order. If a cell phone is to be used, it must be pre-arranged and it will only be used as a secondary communication method and a connection must be able to be established from Range Control to the cell phone being used as the alternate means.</p>
	<p>Ensure radio checks are made to Range Control every 30 minutes, on the half-hour, while in a "HOT" status. The ROIC/RSO will provide the final radio check when displacing. Training units will establish their own internal communications network for all administrative needs (road guards, etc.). Range Control will not provide radios or communication networks for internal communication needs. Mandatory radio checks are required with BLACKBURN at 0600, 1400, and 2200.</p>
	<p>Ensure all applicable safety precautions are taken for that properly scheduled in RFMSS event.</p>
	<p>Conduct a joint inventory of the A&amp;E (Ammunition) at the range with personnel delivering the A&amp;E.</p>
	<p>The ROIC/RSO will compare their inventory against what is reflected on the appropriate ASP issue document and verify that the lot number on every container matches the lot number on the issue document.</p>
	<p>Open all containers that are not factory sealed and visually inspect the ammunition and explosives to ensure the contents correspond with what is indicated on the issuing document.</p>
	<p>Ensure ammunition and explosives are properly handled, transported, stored, and accounted for within the training complex from the time of receipt to the time of expenditure or turn-in in accordance with appropriate service level directives.</p>
	<p>Ensure plans for firing exercises and maneuvers are coordinated with the Camp Lejeune, RCO as scheduled for in RFMSS. The ROIC will coordinate with the RCO/BLACKBURN and units using adjacent ranges or facilities to ensure safe conduct of training. Deconfliction of airspace with the air detachment or any aircraft on-station will be conducted with the assistance of the unit Air Officer and BLACKBURN.</p>

	<p>Implement risk management in all phases of the training exercises. The ROIC will have a detailed ORM worksheet (or other DoD service equivalent) signed/reviewed by the unit CO that covers all phases of training to be conducted prior to checking out the range. The ORM worksheet can be found in Appendix C of this Order. Event ORM must be made available upon request to Range Control safety personnel.</p>
	<p>Obtain clearance from Range Control to go "HOT" and notify Range Control when going "COLD".</p>
	<p><b><u>Anyone observing an unsafe condition</u></b> (including aircraft, humans, or animals in the line of fire) during firing exercises shall give the command <b>CEASE FIRE</b>. When this command is given it will be relayed immediately to the control tower operator who will echo the command <b>CEASE FIRE</b> over the public address system. The RSO will investigate the unsafe condition, take necessary corrective action, and will report the correction of the unsafe condition to the ROIC. <b>The ROIC will resume firing when convinced that the RSO has corrected the unsafe condition</b></p>
<p style="text-align: center;"><b>RECEIPT, CONTROL, ASSUMPTION OF RESPONSIBILITY FOR AMMUNITION (ROIC RESPONSIBILITY)</b></p>	
	<p>Ammunition separated by DODIC and provide proper/required security and the required safe separation distances.</p>
	<p>All delivered A&amp;E physically inventoried with delivery ammo tech/ammo driver.</p>
	<p>Ammo DODICs never mixed during use or storage blank ammunition and live ammunition must be separate with the required supervise in place, enforced, and supervised at all times.</p>
	<p>Guard supervised and instructed on A&amp;E security procedures.</p>
	<p>Using unit briefed on ammo to be used on the range/TA.</p>
	<p>Training unit briefed on proper ammunition/weapon handling procedures.</p>
	<p>Shake-down (ammunition) procedures briefed.</p>
	<p>Only enough ammo to accommodate each training phase is broken-out.</p>
	<p>Ammunition Information Notices (AIN), Notices of Ammunition Reclassification (NAR) and Cleared for Overhead Fire Supplements must be included in the Range Safety Brief.</p>

<b>Range Safety Officer (RSO) RESPONSIBILITIES PRIOR TO FIRING</b>	
	There is a designated RSO present and isn't tasked or assigned to perform any other duty and is of the proper rank for that range or training activity. Points of interest and potential safety highlights outlined in ORM have been addressed.
	Range regulations (RC SOP) and the (Range Card) for the specific range/TA/Training Facility have been read/and understood.
	Range inspected for safety hazards.
	Range flag erected (indicates the range is occupied with intention to fire ammunition or explosives).
	Target material inspected for safety hazards.
	Obtain personnel roster for the range from the ROIC (includes first and last name, rank, and blood type).
	Safety personnel and proper safety equipment are present.
	Safety Field Medical Technician HM/8404 Corpsman/Army or Air Force Medic/Contractor EMT is present with medical kit and equipment. The Corpsman/Medic and Safety Vehicle Driver must be staged in a safe area and able to response as required.
	Government safety vehicle that is fully operational with qualified driver is present.
	Safety vehicle driver briefed on duties.
	Vehicles staged on the range to facilitate quick access to TA/range.
	Safety radio operator with communication gear is present.
	Communication gear checked to ensure it is in working condition.
	Extra batteries are present as required.
	Radio operator briefed on all procedures.
	Radio frequency confirmed.
	OE-254 erected (if necessary).
	Radio operator monitoring radio at all times.

	Safety road guards posted with positive two-way communication (in teams of two (pairs) as per unit SOP).
	Air sentries posted with positive two-way communication.
	Ammo guards posted (in teams of two) if required.
	All road/range guards briefed on post requirements/duties if required.
	All guards provided with meal(s) and water for post duration.
	Communication with Range Control established/maintained.
	Fire danger rating confirmed (Camp Lejeune's Fire Readiness Plan).
	Permission from Range Control requested to assume "HOT" status.
	Number of personnel on the range reported.
	Type(s) of weapons to be fired on range reported.
	Type(s) of rounds (DODICs) to be fired on the range report and the number of rounds fired of each DODIC
	ROIC/RSO conducting radio checks ("HOT" status = every 30 minutes). Mandatory radio checks are required with BLACKBURN at 0600, 1400, and 2200.
	Receive the safety brief from Range Control on RSO duties and specific range regulations for that range/training facility.
	Conduct a joint inventory of the A&E at the range with personnel delivering the A&E.
	The RSO will compare their inventory against what is reflected on the appropriate ASP issue document and verify that the lot number on every container matches the lot number on the issue document.
	Open all containers that are not factory sealed and visually inspect the A&E to ensure the contents correspond with what is indicated on the issuing document.
	Conduct a safety brief for all personnel present using the Range Safety Card issued with the range can from Range Control.
	Ensure weapons are properly positioned at authorized firing sites as indicated by the Range Tables and overlays.

	Brief road guards and air sentries in their duties and positions, ensure that barriers or gates are properly positioned and that road guards and air sentries have positive two-way communication with the RSO (radio, landline, etc.).
	Communication must be maintained between the RSO, road guards, and air sentries at all times.
	Radio checks must be made to road guard and air sentries every 30 minutes.
	If communication is lost the range will go into a check-fire status until communication is re-established.
	The RSO conducts final coordination with the ROIC. This coordination will include a summary of checks, inspections, and actions that the RSO has completed. Then the RSO will contact Range Control and request a "HOT" status.
	There are no unauthorized POVs on the range, mortar position, gun position, TLZ/ALZ, or training facility.
<b>DESIGNATION AND ESTABLISHMENT OF A FIELD AMMUNITION SUPPLY POINT (FASP)</b>	
	FASP establishment. (Security)
	Two-man ammo guard (100% alert) assigned for stored ammo in the FASP.
	Ammo guard(s) in condition four (with 15 rounds of ammo each).
	Site for dunnage consolidation point established.
	Site for trash collection established.
	Plastic trash bags used (for ease of inspection).
	Using unit briefed on trash and dunnage handling.
<b>FASP REQUIREMENTS</b>	
	Ammo stored 100 meters (m) or more from bivouac site, mess area
	No flame-producing items within 50m (i.e., lit cigarettes)
	Ammo sheltered with water-resistant cover (poncho/tarp)
	Ammo stored on pallets at all times
	No radio transmitters within 25 feet (ft.) of stored ammo

	All ammo, demolition, and pyrotechnics storage in compliance with FASP regulations
	Compliance with FASP regulations
<b>ESTABLISHMENT OF TRAINING EVOLUTION SAFETY STANDARDS</b>	
	Special safety considerations for the range/TA briefed
	Four safety rules for handling weapons briefed
	Weapons condition for each weapon system used on the range/TA briefed
	Misfire procedures for each weapon system used on the range/TA briefed
	Assistant Range Safety Officer (ARSO) or Position Safety Officer(PSO) designated and briefed
	Safety brief which includes written/signed ORM assessments is provided and on the range
<b>PHASE II - DURING TRAINING/FIRING</b>	
<b>Range Officer-in Charge (ROIC) RESPONSIBILITIES</b>	
	No misconduct occurs on the firing line.
	All ordnance impacts are observed to ensure projectiles land within the prescribed impact area/surface danger zone/weapons danger zone. Firing will be stopped immediately and Range Control notified if ordnance impacts outside of prescribed impact areas. (Round Out Of Safe)
	The impact area is constantly observed and controlled to ensure that it remains clear.
	Firing is stopped immediately when any unsafe act is observed or reported.
	All accidents, injuries, or fires, regardless of severity, are reported immediately to Range Control.
<b>IN THE EVENT OF SERIOUS INJURY OR DEATH, THE ROIC WILL:</b>	
	Call an Immediate "Cease-Fire"
	Ensure medical aid is rendered as required.

	Contact Range Control and report the location, nature and category of the accident, and assistance required. If an evacuation is required, the senior service member from the using unit will be the on-scene commander and will initiate action for the MEDEVAC/CASEVAC.
	Preserve the range for accident investigation. (The site must be secured/controlled)
	Fill out a Training Accident Report (Chapter 1 of this Order) and provide a copy to the Range Control within 24 hours.
	In the event of a non-serious injury or near miss that could have resulted in a serious injury, the ROIC will ensure that corrective action is taken to prevent the incident from happening again.
<b>Range Safety Officer (RSO) RESPONSIBILITIES</b>	
	Ensure "ONLY AUTHORIZED WEAPONS", as indicated by the Range Tables/RFMSS and signed for are utilized on the scheduled range.
	Allow "ONLY AUTHORIZED MUNITIONS" and ensure they are properly utilized in accordance with all applicable regulations/range card.
	Verify that proper safety data is applied to all weapons systems.
	Monitor the communications network at all times. Make radio checks every 30 minutes on the half-hour to Range Control.
	Order an immediate cease-fire or check-fire when any unsafe condition is observed, including loss of communication.
	Enforce the safety regulations prescribed in this Range Control Order/Orders/Range Cards.
	Ensure the SDZ is clear and that personnel wear appropriate safety equipment and hearing protection.
	Ensure all ammunition found on the range is reported to Range Control immediately.
	RSO must supervisor and minimize the number of personal on the firing line/hazard area to ensure safety.
<b>SAFETY SUPERVISION DURING CONDUCT OF TRAINING</b>	
	ARSO(s) or PSO(s) in place prior to beginning of training if required.

	Helmets, flak jackets, hearing, eye and any other PPE properly worn. Level 0, Level 1, Level 2, Level 3 as per MCO 3570.1C/DA PAM 385-63
	Final sweep of impact/TA conducted (Final Checks).
	Training unit conducted inspection for proper ammo and equipment.
	Targets and target materials placed in a safe location and direction.
	Blank firing attachments properly mounted (if applicable) or removed if conducting live-fire.
	Ammunition shake-down procedures supervised and conducted for each ammunition type transition (Check Magazines).
<b>PHASE III - AFTER FIRING</b>	
<b>Range Officer-in-Charge (ROIC) RESPONSIBILITIES</b>	
	All weapons have been cleared/checked, and notification of going "COLD" is given to Range Control.
	An accurate count and type of all munitions expended is maintained and the count is turned in to Range Control upon completion of the exercise. Must be reported by DODIC.
<b>CONTROL OF UNEXPENDED AMMO TO RECEIVING UNIT AMMO TECH TURN-OVER</b>	
	Completed ammo expenditure report turned over to ammo tech.
	Joint inventory of unexpended ammo (with unit ammo tech) completed.
	Form 1348-1 completed with the ammo tech while on the range/TA.
	All Grade III ammo identified for turn-in.
	Ammo properly packaged.
	Only properly transported ammo allowed to leave the range/TA.
	The area is policed before leaving. Ensure all brass, cartridge cases, and reusable containers are removed from the range and returned to the appropriate facility.
	Range inspection conducted by a Range Control, Range Inspector.
	All safety equipment and checked-out items are promptly returned to Range Control.

	Required paperwork associated with range utilization is completed and turned into Range Control.
	All check-out procedures are completed with Range Control and responsibility for the facility is relinquished.
<b>UNEXPENDED AMMO AND EXPLOSIVES ACCOUNTABILITY</b>	
	All unexpended ammo at the FASP consolidated.
	Each DODIC at the FASP physically counted.
	All dunnage and trash inspected.
	Clear plastic trash bags inspected; all dunnage for unexpended ammo physically inspected
	Supervise separation of dunnage from trash. (Brass/Links/Cans)
	Liaison made with training unit for removal of dunnage and trash from the range/TA
	Ammunition expenditure (to determine how much ammo was actually expended down range, on the training area) reconciled
	NAVMC 11381 Form completed.
	Responsible unit ammo tech contacted for ammunition turn-in.
<b>RSO RESPONSIBILITIES</b>	
	Verify all weapons are safe and cleared. (Check all magazines)
	Assist ROIC in supervising the detail police call.
	Perform a shakedown on all personnel/vehicles.
	Account for all saved/expended munitions.
	Communication with Range Control maintained while occupied.
<b>ESTABLISHMENT OF SHAKE-DOWN SITE AND SUPERVISION OF ALL AMMUNITION HANDLING</b>	
	Three stations (with distance between each) established.
	Download station - all unexpended munitions are removed from magazines and equipment.

	Inspection station - supervised pat-downs and magazine/weapon checks.
	Issue point - supervised issuance of the correct type of ammunition for the next training evolution,
<b>SUPERVISION OF CONDUCT OF DOWNLOAD SITE</b>	
	Buddy-system used to download unexpended ammo from magazines, pouches, equipment, and uniforms.
	Participants received proper instructions.
	All participants accounted for at this station using the roster provided by the ROIC of training.
	All munitions are segregated and stored in properly marked containers.
<b>SUPERVISION OF CONDUCT OF INSPECTION STATION</b>	
	ARSOs/PSOs received proper instructions/guidance/duties/functions.
	Thorough pat-down of all individual clothing and pockets, gear, pouches, magazines.
	Detailed magazine/feed tray check/chamber conducted for all weapon systems (Include all Stock Weapons/Crew-Served Weapons).
	Equipment displayed and inspected by RSO or ARSO.
	All participants accounted for at this station using the roster provided by the ROIC/RSO of training.
<b>SUPERVISION OF CONDUCT OF AMMO ISSUE POINT</b>	
	Proper ammo issued for next training event.
	Participants have ensured all magazines are loaded with proper ammo (Note: Do not mix Blank Ammunition/Live Ammunition).
	Test-fire conducted (if feasible).
	All participants are accounted for at this station using the roster provided by the ROIC/RSO of training.
<b>CONDUCT RANGE INSPECTION</b>	
	Sweeps range and/or TA for unexpended ammo and duds from misfires.

	Range Control contacted for disposal and EOD liaison requirements if required.
<b>CONDUCT FINAL DOWNLOAD AT CONCLUSION OF TRAINING</b>	
	Final shake-down inspection of all weapons/magazines conducted before participants depart the range/TA.
	All personnel (including safety personnel, observers, and participants) inspected for ammo and explosives.
	All personnel to be inspected are accounted for and supervised.
	Supervised and accounted for all personnel/weapons to be inspected.

**The 4 Weapon Safety Rules**

1. Treat every weapon as if it is loaded.
2. Never point a weapon at anything you do not intend to shoot.
3. Keep your finger straight and off the trigger until you are ready to fire.
4. Keep the weapon on safe until you intend to fire.

**Learn to live with a loaded weapon.**

**Think Range/Weapon Safety at all times!**

**Common Safety Problems on Ranges**

1. Lack of Self-Discipline.
2. Failure to enforce standards, policies, and orders.
3. Inadequate training.
4. Failure to follow procedures.
5. Improper or inadequate clearing.
6. Untimely loading/unloading, negligent discharge
7. In the path of the recoil or back-blast.
8. Failure to properly observe safety features.
9. Inadequate planning and supervision.
10. Attention to details.